The Journal of the American Medical Association

Published under the Auspices of the Board of Trustees.

VOL. XXXVIII. CHICAGO, SATURDAY, JUNE 7, 1902. No. 23.

Original Articles.

NOTES ON ANEURISM.

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SUMMARY.

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1. ARTERIOVENOUS ANEURISM OF THE SUBCLAVIAN VESSELS.

The elaborate study by Matas, published in the early numbers of THE JOURNAL this year, and his analysis of the 15 cases on record, add interest to the following report:

CASE 1.—CLINICAL SUMMARY. *Bullet-wound of the right subclavian artery and vein in January, 1900. Formation of arteriovenous aneurism. Operation not advised. Good health March, 1902.*

Edward S., aged 29, of Kentucky, was sent to me by Dr. Alderson on April 9, 1900, with the following history: On the night of Jan. 5, 1900, he was shot, receiving four bullets. One entered the left shoulder and is now imbedded in the upper portion of the spine of the scapula and gives no trouble. One entered about the middle of the back of the left arm and passed inwards and downwards to inside the condyle of the humerus, where it was deflected across the bend of the elbow and down the forearm, making its exit about the upper third, injuring the ulnar nerve. The third bullet entered the left side a little behind the mid-axillary line between the ninth and tenth ribs. It apparently did not penetrate the chest at all. The fourth entered just about the middle of the fold of the left trapezius, passed inwards and downwards in front of the spine and came out under the right clavicle. The wounds healed rapidly. He had at first some difficulty in swallowing, but he has gradually been getting well. There was at once considerable swelling in the neighborhood of the clavicle, with marked pulsation, a thrill and a bruit.

Present Condition.—He looks well. Tongue is clean. Chest is well formed. Immediately above the free margin of the middle of the left trapezius there is a bullet-wound, the point of entrance of the ball which caused the aneurism. The left clavicle stands out a little more prominently than the right. The right clavicle is just visible. The supraclavicular fossa is occupied by a pulsating swelling which causes a marked prominence between the sterno-clavicular margin, extending outward a distance of about 7 cm. It does not lift the sterno-cleido-mastoid muscle, the sternal outline of which is plainly marked. The sternal notch is plainly marked. Above, the swelling extends for fully 7 cm. The pulsation is visible over the whole tumor. From behind it is very noticeable. On palpation there is a marked thrill, continuous, but with systolic intensification, felt and heard over the whole tumor, and felt up the neck fully 7 cm. from the clavicle. It is well felt on deep pressure to the right in the sternal notch, not felt on the clavicle. The tumor forms a distinct pulsating mass about the size of, or a little larger than, an egg, quite painless. No thrill is felt below the clavicle or over the body of the heart or on the sternum. Apex beat in nipple line; no increase in area of cardiac flatness. On auscultation both sounds are loud and clear at apex and over the whole precordia. Everywhere, too, from the apex up, increasing in intensity, is heard a humming-top murmur, with marked systolic intensification. At the sternum it is very loud, and over the aneurism reaches its maximum intensity. An interesting feature is that he feels the pulsation in the left ear, not in the right. The murmur is of extraordinary intensity, heard up and down the neck, heard along the axillary artery to the elbow. The systolic murmur is very intense, and the whole diastole is occupied by a wheezing, wiry Æolean murmur. In the recumbent posture the tumor does not look larger, and the thrill is not so evident. The pulsation in the subclavian below the clavicle on the left side is visible. On the right side it is not visible. There is a marked difference between the pulse in the radial arteries; the right is feeble, only just to be felt. The brachial pulse can be felt. The axillary can be felt, much feebler on the right side than on the left. The carotid on the right side is full and easily felt. There is no thrill in it on palpation. There is no difference in the pulse in the temporal arteries. The bullet was located with the *x*-rays, and can be felt just below the clavicle.

There is no question that the bullet in this case has nicked the subclavian artery and vein, causing arteriovenous aneurism. The man's general condition was good, and as he was improving I counseled very strongly non-interference. Subsequently he saw several surgeons, some of whom were anxious to operate, but fortunately he escaped them. Since then he has been doing well, and I heard from his physician, March, 1902, that the tumor is smaller and he is able to do quiet work and has little or no inconvenience.

The question of operation in these cases has been very fully discussed by Matas in his exhaustive study above referred to. Of his collection of 15 cases 4 were operated on, 3 within 12 days of the injury, and one 32 years after, which was the only one fatal. Unfortunately, 6 of the 11 cases passed out of observation within a few weeks or months after the injury, while the lesion was still active. The ultimate result of the other cases shows that the condition may remain quiescent for a long period of years. In a few instances there were serious disturbances of the circulation and innervation of the hand and arm, while in one case (Watmann's), after a latent period of thirty-one years, the lesion became active and gave rise to fatal complications.

The condition of arteriovenous aneurism has interested me for a number of years, having had under observation at intervals a man whose case I described in the *Annals of Surgery*, 1893. At that time he was

twenty-five years of age. When fifteen he had fallen and a lead-pencil in his waistcoat pocket penetrated the axilla, causing an arteriovenous aneurism. He had remained very well, had been very active and strong, had rowed in boat races. I heard of this patient not many months ago. He had served through the South African war, so that his general condition must have remained good. The aneurism has persisted now for more than twenty-three years.

Arteriovenous aneurism is so rare a lesion that even surgeons of large experience are often a little perplexed as to the best course to follow. I am very much impressed with this in the extraordinary differences of opinion given to the young man with the lesion high up in the axillary artery. The conclusions of Matas which are strongly in favor of non-interference may be quoted: "The statistics which we furnish in this paper—the most complete list of the reported instances of this rare lesion which has thus far appeared—tend to confirm the arguments of the 'let-well-enough-alone' policy, in so far as they demonstrate that in at least 11 of the 15 cases the patient survived the immediate effects of the injury and of the arteriovenous aneurism that followed it for variable and often long periods of time."

2. THE HUMMING-TOP MURMUR IN THORACIC ANEURISM.

In September, 1888, there was admitted under Dr. Pepper's care at the University Hospital, Philadelphia, a Chinaman, whose case I had frequent opportunities to study with Dr. Crozier Griffith. The case was reported by Pepper and Griffith in the "Transactions of the Association of American Physicians," Vol. V. The remarkable features were cyanosis, and a murmur of extraordinary character, heard loudest at the aortic cartilage and accompanied with a thrill. As described by the writers, the murmur was "loudest and highest pitched with the cardiac systole; it died away very considerably during the diastole, and lowered its pitch by several tones, to rise again both in volume and pitch with the next systole. It was thus continuous, and had a distinctly venous quality, although unlike a venous hum in that it was distinctly rhythmic." At the autopsy there was found a small aneurism of the ascending aorta which communicated with the superior vena cava by an opening three-fourths of an inch in length. The case made a very definite impression upon me, and I have since learned to recognize the murmur as almost pathognomonic of abnormal communication between the chambers of the heart or between the great vessels at the root of the neck, or of an aneurism at the aorta with the vena cava or pulmonary artery. More definitely, the cases in which I have recognized it have been congenital heart diesase with persistence of the ductus arteriosus, cases of imperfection of the ventricular septum, and in the two cases here given:

CASE 2.—CLINICAL SUMMARY. *Young man. Syphilis 3 years before admission. Cough. Shortness of breath. Aneurismal tumor to right of sternum. Loud, continuous murmur with systolic intensification. Postmortem. Communication of a large branch of the right pulmonary artery with the aneurismal sac.*

Joseph M., aged 30, admitted first on July 29, 1901 (Med. No. 13,212), complaining of shortness of breath, cough and pain in the chest. An important point in his history was that three years ago he had syphilis. He had been a heavy drinker and a heavy smoker. His illness began in October, 1900, with a cough, which was dry and hard and troubled him very much at night. He had shortness of breath from the beginning. These symptoms increased throughout the winter. He had pain first in February.

On his first admission the signs of aneurism of the thoracic aorta were very well marked—a visible bulging with pulsation to the right of the sternum; no thrill; very exaggerated diastolic shock; flatness over the pulsating area. Dr. Futcher, who dictated the note, described the heart sounds as clear and a very faint soft systolic murmur along the left sternal border and over the prominent part of the pulsation. There was no diastolic murmur. The patient was given a gelatin injection and kept at rest. On my return in September I saw him, and he then had very much the symptoms described by Dr. Futcher when first admitted.

Then he returned on December 31. He had been in the country and had become very much worse, having attacks of dyspnea and weak spells. The pulsating tumor was larger. There was a wider extent of flatness. The most remarkable change was on auscultation over the sac. The diastolic shock was extreme and there was a feeble thrill. There was a very loud, continuous murmur occupying the entire cardiac cycle, with a great deal of echoing reverberation and marked systolic intensification.

The sac was evidently so large and so far out that, while I recognized the murmur as the kind heard with abnormal communication, I must say I thought it possible that this remarkable whirring, continuous murmur might be produced in a very large sac.

The patient died Jan. 10, 1902. The anatomic diagnosis was arteriosclerosis, aneurism of the arch of the aorta, compression and atelectasis of right lung. On the posterior wall of the sac, where it had pressed into the lung, one of the main branches of the right pulmonary artery, fully as large as the little finger, opened directly into the sac.

CASE 3.—CLINICAL SUMMARY. *Syphilis two years before observation. Cyanosis. Shortness of breath. Great congestion of the veins of the upper-half of the body and of the arms. Gradual development of compensatory circulation in the mammary and epigastric veins. Over the manubrium and aortic regions a continuous murmur with marked systolic intensification, limited to the area about the aortic cartilage and the middle of the manubrium. Death. No Autopsy.*

Jos. S., aged 39, an iron-molder, applied at the dispensary of the Johns Hopkins Hospital Dec. 7, 1889. He had been ill since January, complaining of giddiness, cough, shortness of breath, swelling of the feet and a congested and bluish condition of the face, which became aggravated when he attempted to do heavy work. He is a thick-set, well-built, muscular man. He had a chancre two years ago. There is no history of rheumatism or chorea, but in September, 1888, he was in bed three weeks with some obscure pulmonary trouble.

Physical Examination. Face is swollen and reddish; lips and ears are cyanotic. Conjunctivæ watery. The tongue is clean, deeply congested and the whole of the pharyngeal mucosa is intensely engorged. Chest is large, antero-posterior in diameter, deep. The skin, covering the entire thorax and of the arms is congested. The venules along the line of the diaphragm and in the lateral region of the chest are dilated. The neck is thick, supra-clavicular spaces distended, sternal notch obliterated. The breathing is quiet, 24 to the minute. The apex beat is indistinct, but a feeble impulse is visible in 5th in nipple line and there is throbbing in the epigastric notch. There is a feeble shock of the first to be felt at the apex, but there is no pulsation at the base on deep pressure. There is no dulness on the manubrium sterni and the superficial area of heart dulness is not increased. On auscultation there is a systolic murmur at apex, propagated to the back. The second sound is ringing. Along the left sternal border the systolic murmur becomes more intense. Over the manubrium there is a loud murmur of very peculiar character, not like an ordinary aortic systolic, short and rough, but a murmur which seems continuous and during the systole greatly intensified. The second sound at the base is clear and ringing. The radial pulses are equal; pupils equal. There is no brassy cough. On examination of the chest a few piping râles with prolonged expiration were noted.

The patient was seen on four occasions during the next month. The cyanosis and shortness of breath had increased. On January 7 I made the following note: Much worse since last seen on the 2d. The face is much swollen and absolutely

blue, looking like that of a man who had been strangled. The mucous membrane of the pharynx intensely livid. Eyelids swollen; conjunctivæ deeply engorged. The neck is enlarged; the external jugular is prominent. The upper part of the chest and both arms are swollen but not edematous. The veins of the arms are full. The whole subcutaneous tissue feels thickened and infiltrated. The right side and the right arm are more swollen than the left. In the lower chest zone the venules are greatly enlarged, but no large mammary veins are visible. When stripped the contrast between the upper and the lower parts of the body is remarkable. The engorgement goes as far as the lower abdominal zone. The legs are quite pale. The amount of subcutaneous infiltration is such that the superficial veins are not visible. The apex beat is indistinct. There is a systolic shock. The area of cardiac dulness is not increased. In 5th interspace below nipple, there is a loud systolic murmur not obliterating the first sound, at aortic cartilage and on manubrium the same remarkably loud, continuous murmur is heard, with systolic intensification; second sound clear and ringing. The systolic murmur is heard to left and right two inches from the sternum, but the continuous murmur is only heard at the more limited area about the aortic cartilage with a maximum at mid-manubrium.

The radial pulses were equal, 98; respiration quiet. The subjective sensations of the patient are remarkable. He says that he feels comfortable with the exception of the feeling of distension in face, chest and arms. It is extraordinary how slight is the distress in breathing in a man presenting a condition of such extreme cyanosis. He says that one of his chief annoyances is the shock which his appearance gives to his friends. He is not drowsy. His intellectual condition is perfect. He sleeps at night with his head high.

About two weeks subsequent to this visit we heard that the patient had died; but his wife refused an autopsy. She said he got progressively worse and even more cyanotic. He was taken to the city hospital, but whether he died there or at his house she did not say.

This patient presented the characteristic features which Pepper and Griffith describe in an analysis of some 29 cases of communication between an aneurism of the aorta and the superior vena cava, more particularly the extreme cyanosis of the face and upper parts of the body, with evidences of obstruction of the circulation in the tributaries of the superior vena cava. They regard the murmur as characteristic of communication between an artery and a vein, and state that it was first described by Thurman in 1832-33. The characters are:

1. It is continuous, occupying both the systole and diastole.

2. There is a systolic reinforcement, often of great intensity.

3. The venous quality of the murmur, resembling the characteristic venous hum in the jugular and the murmur over the thyroid in Graves' disease.

The quality varies. It may be a buzzing or it may have a remarkable, sonorous, vibratory character, or, again, it may be a churning or purring murmur. Ord describes it very well as a long continuous humming murmur, never ceasing, but varying in intensity, more sonorous during systole, fainter during diastole. To Thurman the credit appears to be due for the recognition of a murmur of this quality as pathognomonic of arteriovenous aneurism. The question has been very fully discussed by Sir William Gairdner in the Glasgow Hospital Reports, 1899, in the report of an interesting case in which a small aneurism of the ascending portion of the arch communicated with the pulmonary artery.

3. ON THE VALUE OF THE FLUOROSCOPE IN THE DIAGNOSIS OF OBSCURE CASES OF THORACIC ANEURISM.

CASE 3.—CLINICAL SUMMARY. *Cough and dyspnea for six months. Much emaciation. Flatness to left of sternum. Diagnosis of mediastinal sarcoma. Examination by fluoroscope showed a characteristic pulsating tumor. Subsequent slight pulsation of the thoracic wall. Wiring of the sac. Hemoptysis. Death.*

On Jan. 15, 1902, I was consulted by Mr. T. R. F., who had been complaining of cough for six months, loss in weight and pains through the chest. I was impressed at once with the expression of great distress and anxiety in the poor fellow's face. He looked worn and exhausted with suffering, and he said that he had not been able to lie down for some weeks, and had had nights of indescribable anguish owing to the orthopnea, pain and sense of smothering. I was impressed at once with the noisy, stridulous, tracheal character of the breathing. He had been a bartender, had taken alcohol freely, and had had venereal sores at different times: the strong probability is that he has had syphilis. He thinks that for a year he has had some cough, but for six months there have been shortness of breath, loss of weight and pain in the chest. About three months ago his voice changed. He has had no spitting of blood. Of late he has had frightful paroxysms of pain and orthopnea, particularly at night. He had consulted a number of physicians in New York and elsewhere, and the diagnosis had been made of mediastinal sarcoma.

On examination the chest was well-formed, expansion good and seemed equal on both sides. No abnormal area of pulsation was noticeable; no throbbing in the sternal notch. There was an area of impaired resonance in the first, second and third left interspaces and over the central portion of the manubrium. The point of maximum impulse was in the fifth interspace, 10½ cm. from the mid-sternal line. The cardiac flatness was not increased. There was a soft systolic murmur at the apex; the second sound was clear and without special accentuation over the area of dulness. The pulse was of good volume; the left radial was smaller than the right. The breath sounds on the left side were less intense than on the right.

Altogether, at the first examination I was inclined to agree with the diagnosis which had already been made of mediastinal sarcoma. It seemed to me that an aneurism would by this time have shown more definite physical signs. The patient entered the Johns Hopkins Hospital that I might study his case more fully. The following additional points were then made out. First, "with the *x*-rays there was a large shadow seen, which extended from the upper end of the sternum to the upper border of the third rib. It did not extend to the right beyond the shadow of the vertebræ, but did to the left to about opposite a point 2/5 of the extent of the clavicle from its inner end. It was sharply defined with clear outlines, showed slight pulsation and moved very slightly to the left on deep inspiration. It could be clearly separated from the shadow of the heart. Looked at from behind it looked larger than from in front. It is worthy of note that it seemed denser and with much sharper outlines than in cases of undoubted aneurism previously examined." (Dr. McCrae.) Secondly, on the second day after admission, on getting the patient into a bright light and examining the chest critically, there was seen a distinct slight visible pulsation in the first left interspace and the left clavicle was slightly lifted. Thirdly, there was well-marked paralysis of the left vocal cord. Fourthly, the blood pressure showed the right brachial maximum 118, left brachial maximum 103. These points seemed quite sufficient to settle the diagnosis of aneurism against that of mediastinal sarcoma. It is interesting to note that there was no bruit over the pulsation; no special accentuation of the aortic second sound. The patient's condition was most distressing. The nights were passed in terrible distress and in order to reduce the blood pressure he was bled on several occasions with very great relief. On January 20 his condition seemed perfectly desperate, and as a last resort I asked Dr. Finney to wire the sac. The patient stood the operation remarkably well. The needle was inserted in the second left interspace about 5 cm. from the sternal margin over an area in which there was marked pulsation. "A medium-sized needle was inserted in a direction backward and slightly downward and inward. When the needle had been inserted about 6 cm. a pulsation was transmitted to it. It was then pushed in about 2 cm. further, when fresh blood escaped in spurts. Ten feet and seven inches

of No. 27 spring silver wire, wound large, (75 parts copper to 1000 silver, alloy) was then slowly inserted. A current of 10 ma. was then allowed to pass through the wire for one hour." The patient seemed very much benefited by the operation, and seemed for a few days decidedly improved. Then, on the night of the 17th he had a small hemorrhage. On the 18th he had a sudden profuse hemorrhage from the lungs and died in a few moments. The heart beat faintly for thirty seconds after the last respiration.

Postmortem there was found an aneurism of the transverse arch, containing mural thrombi within the sac, and the wire was within the sac. There was compression of the left bronchus, perforation into the trachea, hemorrhage into the right lung.

It is particularly in this group of aneurisms, with symptoms and no physical signs, that the *x*-ray examination is of such service, but we have not had a case in which it was more clearly demonstrated than in the one here noted.

4. ON THE VALUE OF CAREFUL INSPECTION OF THE CHEST IN THE DIAGNOSIS OF THORACIC ANEURISM.

A bare chest, a good light and good eyes are the essentials. Routine in the examination is important. Invariably at the ward visit after the inspection of the front of patient's chest I say to the student, "What next?" and he immediately proceeds to palpation, overlooking the inspection of the back, and which, if not made in the right time, and in a routine manner, may be overlooked altogether.

Many years ago at the Girard Hotel, Philadelphia, I saw a remarkable case which illustrated the value and importance of the point. The patient had a large area of pulsation in the lower front of the chest, extending almost from one nipple to the other, with distinct prominence. There was a double murmur at the base of the heart, and the case had been regarded as one of aortic insufficiency, which condition was present. He had paroxysms of great distress and orthopnea, and there were peculiar features about the case, so that one or two of the leading physicians in Philadelphia had expressed themselves as somewhat puzzled about its nature. Fortunately, after finishing the inspection in front, I turned the patient's back to a good light, and the diagnosis was made at a glance. There was a pulsating aneurismal tumor in the left interscapular region, which had given him no pain whatever, and which had not attracted the attention of his physicians. A remarkable condition was present in this case, which I had never seen before; namely, a complete absence of the pulse in the iliacs and femorals.

At present in my wards are two cases illustrating this very well; a man (Leonard) has a wide area of impulse in the lower sternum and adjacent interspaces. He has been under observation now for nearly three years, and time and again Dr. Thayer, Dr. Futcher and myself have discussed the possibilities. A positive diagnosis was not reached until a year ago, when a slight pulsation was seen in the left interscapular region, which has increased, and it is now quite evident that there is a large aneurism of the descending thoracic aorta.

The second case, a man aged about 35, has on inspection of the chest a very well-marked pulsation of the manubrium. The diagnosis of aneurism will be made at a glance. He has had a great deal of dyspnea and pain in the chest. On additional examination it is noted as rather remarkable that with so much pulsation on the manubrium there is little or no flatness. There is a well-marked to-and-fro friction. Inspection of the back shows in the left interscapular region slight bulging, with well-marked visible and palpable pulsation.

Sometimes the diagnosis is hidden beneath a tucked-up undershirt. Last year a robust-looking man consulted me about Nauheim: he had been told that he had heart disease, and a physician in Florida had said that his case was a very suitable one for the Schott baths. When stripped, the diagnosis was made at a glance. The head of the clavicle was lifted out of its bed with each systole, and there was a definite pulsating tumor above the sternal notch with a thrill and a loud to-and-fro murmur. In the numerous examinations he had never taken off his shirt, but had tucked it up, and consequently, nobody had ever noticed the aneurism.

Some years ago I got into trouble by too careful inspection and detecting an early throbbing in the third right interspace. A robust, strong man consulted me for cough, shortness of breath and inability to lie down at night. He had the wheezing, goose-cough, as it is called, and there was to be seen most clearly and distinctly, a pulsation to the right of the sternum. With rest, the symptoms improved and the pulsation lessened remarkably. Other physicians (among them one well-recognized authority on heart disease) assured the family there must have been a mistake, as there were no signs of aneurism. The patient improved and I saw him about for more than two years. I began to think that there had been a mistake, but subsequent events showed that the diagnosis was correct. Spontaneously, particularly after prolonged rest, the pulsation of an aneurism to the right or left of the sternum may completely disappear. I do not refer here to cases of so called dynamic pulsation, but to cases in which the subsequent history and autopsy has confirmed the existence of an aneurism.

A BRIEF SUMMARY OF THE CLINICAL, PATHOLOGIC, AND BACTERIOLOGIC FEATURES OF CUTANEOUS BLASTOMYCOSIS (BLASTOMYCETIC DERMATITIS, OF GILCHRIST),

FROM THE OBSERVATIONS OF DR. JAMES NEVINS HYDE AND THE WRITER, WITH ILLUSTRATIONS FROM THIRTEEN CASES, THREE OF THEM HITHERTO UNPUBLISHED.*

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The purpose of this communication is to present to the general practitioner a clinical description, illustrated by photographs of cases, of a cutaneous disorder which is probably more common than is generally supposed and which has possibly been confounded in the past with verrucous tuberculosis of the skin, with unusual forms of carcinoma, or with atypical manifestations of syphilis. For diagnostic purposes a brief description of the histopathology and of the bacteriology (in so far as it is understood) of the disorder is included.

The following description is based chiefly on the clinical, pathologic and bacteriologic study of 14 cases, 13 of which have been under more or less constant observation by us for periods ranging from four months to four years, 10 of them having been under our care for a year or longer. Of these we have studied the histopathology in 13 and obtained cultures in 11 cases. The organisms from 9 cases are at present growing under

* Presented, in part, as a lantern-slide exhibit, to the Dermatologic Section of the American Medical Association, at St. Paul, June, 1901.

our constant observation. In addition we have had the privilege of studying clinically 1 case, histologic sections from 9 cases and organisms in 3 cases reported or to be reported by other observers.

We are indebted to our associates, Drs. Ernest L. McEwen and Oliver S. Ormsby for assistance in the examination and treatment of many of the cases here recorded. Dr. Ormsby, in particular, has done much valuable work for us in the preparation and study of histologic specimens and cultures. We wish further to express our thanks to Drs. W. L. McBride and William A. Quinn, and to Messrs. S. H. Sheldon, R. T. Woodyatt, and S. C. Emly, for various services rendered in connection with this work during the past three years. Dr. W. H. Knap has prepared for us all the photomicrographs but one.†

Following the original communications on the subject from Gilchrist and Busse, a number of cases have been observed in which cutaneous lesions of a fairly constant type were apparently due to fungi, all of which in tissue present characteristics of blastomycetes or budding fungi. In cultures the organisms in different cases have varied considerably, a few growing as yeast fungi, some showing chiefly a mycelial growth. In no reported case of this disease has the life-history of the organism been studied satisfactorily, and our knowledge of these organisms at present is too limited to warrant attempts at classification. Although for the cultural features the term "blastomycosis" is insufficient and unsatisfactory, it at least applies to the organisms as found in tissue, and it seems preferable to retain for the present the name under which so many cases have been reported, rather than to add to existing confusion by attempting to coin a new name.

CLINICAL ASPECTS OF THE DISORDER.

(*a*) *General.* The disease in its origin and career corresponds to a local infective process having a chronic course. The family and individual history of the patient evidently have little or no bearing on the disease. Of 32 accepted cases, published or unpublished records of which are available, in 5 only is there a history of tuberculosis in the family. Of the 32 individuals affected with blastomycosis, 28 gave no history or evidence of syphilis or tuberculosis. One of our patients (case not included in the present report, but to be published later) gave a history of gonorrhea, an indefinite history of syphilis, and died of tuberculosis two and one-half years after the first appearance of the blastomycosis on the face, the cutaneous disorder improving but refusing to disappear entirely under potassium iodid. Another patient (Case 7), now under treatment, has cervical adenopathy and belongs to one of the five tuberculous families mentioned above. She shows no other evidence of tuberculosis, however, and is in good general health. Another patient (Case 11) was in poor health and tuberculosis was suspected but could not be demonstrated. The fourth case in which there was an unfavorable history is that reported by Busse and Buschke, the patient having general adenopathy and other symptoms suggesting tuberculosis. In the majority of all patients the general health has been good, and in none has any constitutional disorder been discovered which could have any bearing on the origin of the cutaneous lesions.

No relation can be discovered between the disease and the sex, occupation, nativity, or habits of the individual affected. Of the 32 patients, 21 were men and 11 women, the larger number of cases in men being due probably to their more frequent exposure to infection. While no definite relation can be recognized between the age of the patient and the disease, it may be noted that about half the cases have occurred after the fortieth year. One case began at 20 years; 6 between 20 and 30; 7 between 30 and 40; 6 between 40 and 50; 5 between 50 and 60; 4 between 60 and 74. The regions most commonly involved are those most accessible to local infection. The face was affected in 18 cases, the eyelids and the skin surrounding the orbit being a favorite site, ectropion resulting 7 times. The hand or wrist was involved in 11 cases. Other regions affected were the leg, thigh, scrotum, buttock, scalp, back, breast, palm of the hand and sole of the foot. Involvement of the mucous membranes proper has not been reported. The eyelids are a frequent seat of the disease, but the conjunctiva escapes, though the ectropion resulting from the destruction of the lid necessarily causes conjunctivitis, due to exposure.

The subjective sensations of the disease vary greatly. Uncomplicated lesions, as a rule, give rise to but little pain. In some instances the lesions have been very painful, particularly so when the active inflammation has been greatly intensified by secondary infection.

(*b*) *Description of Lesions.* The disorder begins as a papule or papulo-pustule, which soon becomes covered with a crust. The lesion slowly enlarges peripherally in the form of an indolent, flat, wart-like or crusted papule. In the majority of all cases the lesions had existed a number of months and had attained a diameter of an inch or more before the patient applied for treatment. In a recent case we have had the opportunity of watching a lesion grow from the beginning small papule. As a rule, the disease spreads over contiguous areas from the site of the original papule; but in two or three instances the original lesion has been followed in the course of weeks or months by the appearance in its immediate vicinity of a number of new foci, which have developed and coalesced to form one large area. In about half the cases the original patch of the disease has been followed in the course of weeks or months by one or more new lesions in adjacent or other regions of the body. In some instances the clinical evidence of auto-infection has been very strong.

In lesions that have attained the diameter of half an inch or more, the following characteristics are apparent: The patch is elevated from one-eighth to three-eighths of an inch above the surrounding skin; the surface is covered by irregular papilliform elevations, separated by clefts or fissures of varying depths, giving it a verrucous or cauliflower appearance. In the younger lesions and near the border of the older ones, especially of those which have been kept clean, the papillary projections are fine and the surface is fairly firm, dry and wart-like. Portions of larger lesions, and especially those which have been untreated, are covered by more or less bulky and adherent crusts, on removal of which the papillary elevations are seen to be larger, lobulated, even subdivided, and bathed with a sero-purulent secretion. Some of these crust-covered projections bleed easily. In exceptional instances the area under a crust may present the appearance of an ordinary unhealthy ulcer, with exuberant granulations. In older lesions the papillomatous surface may be replaced in part with a thick, elevated, scar-like formation, pinkish-white in color, ir-

† Fig. 33 is from a photomicrograph by Dr. Carl Gramm. Figs. 19 and 24 have been used in the writer's chapter on Diseases of the Skin in the American Text-Book of Pathology, W. B. Saunders & Co. Figs. 3, 17, 22 and 41 have appeared in our Treatise on Diseases of the Skin, Sixth Ed., Lea Bros. & Co.

regular and often corded, but having a smooth, shining surface. (Illustrated in central portions of Figs. 2 and 3.) The base of the active lesion is always soft and more or less infiltrated with sero-pus, which, on slight pressure, oozes out between the papular elevations.

The border of the area is one of the most characteristic features. It slopes more or less abruptly from the elevated roughened surface to the normal skin, from which it is sharply defined. It is smooth, of a dark red or purplish-red color, is from one-eighth to three-eighths of an inch wide, and on close inspection is seen to be set with a large number of very minute abscesses. These abscesses are many of them so small that they are not visible to the naked eye, but can be recognized with a hand-glass magnifying from two to six diameters. Others vary in size up to that of a pinhead. Some are superficial, but many, especially the smaller ones, are deep-seated. When carefully punctured with a fine needle, these abscesses give exit to a small amount of a thick, glairy mucus or muco-pus, the purulent character of the secretion increasing with the size of the pustule. From the smallest abscesses the amount of mucus expressed is sometimes so scanty that it can only be seen with the aid of the hand-glass; yet it is from these minute abscesses that the organisms are best obtained in pure culture. Abscesses of the same sort are seen also in other parts of the growth, and not infrequently on the thick, scar-like tissue described above; but in characteristic development they are best seen on the sloping border. The number of abscesses varies in different cases and in the same case at different times, depending somewhat upon the activity of the process.

The course of the disease is irregular but essentially chronic. Usually a number of months elapse before the original patch attains a diameter of an inch or two. It may remain indolent for months or even years, with irregular periods of activity and progress; but, as a rule, extension of the area is slow and continuous. The majority of the areas sooner or later attain the size of a silver dollar or of the palm, and some of them become very much larger. As the disease extends at the periphery, healing frequently occurs in the central portion of the growth. In this manner large areas (in one instance the greater portion of the thigh and leg) may be involved in various stages of the process. Healing sometimes occurs spontaneously. Whether spontaneously or as the result of treatment, the first indication of healing is found in the gradual flattening and disappearance of the papillary projections, partially by absorption, partially by desiccation and exfoliation. At the same time the amount of secretion from the underlying base diminishes, and the whole patch assumes more of an ordinary verrucous appearance. In many instances the papilliform surface is replaced temporarily by the hypertrophic scar-like tissue described above, which in turn gradually disappears and gives place to the characteristic cicatrix, which eventually becomes soft, supple, non-attached, pinkish-white and, on the whole, very inconspicuous, though always sharply outlined from the surrounding skin. As a rule, the resulting deformity is very slight. Involvement of the eyelids is followed by ectropion, and in some instances where destructive agents or scraping operations have been employed, the disappearance of the characteristic lesion is followed by an ordinary indolent ulcer, which heals with a thickened and somewhat deforming scar.

During the healing process, though the miliary abscesses decrease in number, careful search will reveal them even in scar tissue that has become quite thin and soft. It is consequently not uncommon to see areas that have apparently healed, again become more or less covered with active points or areas of disease. A single patch may thus present nearly all stages of the disorder, showing at the same time several of the following features: the advancing border; new-forming lesions on old scars; verrucous or cauliflower lesions in various stages of development or disappearance; a base in places dry and firm and in others soft and infiltrated with muco-pus; a scar tissue, in part thick and irregular and in part smooth, soft, supple and non-attached to the deeper tissues. (Fig. 14 shows a number of scattered lesions which have appeared on an old scar.)

ETIOLOGY.

A local infection with the fungus peculiar to each case is the sole recognized cause for the disease. In several instances there has been a history of trauma preceding infection. What other conditions favor the origin and the development of the process have not been determined. Why certain yeasts and mold fungi should be pathogenic, while others are innocuous; how common the pathogenic varieties are in nature, and how they differ from the ordinary varieties, are as yet unsolved problems. It is possible that the difference in virulence between the organisms in blastomycosis and in protozoic disease may be due to the influence of climate, all reported cases of protozoic disease having originated in California.

HISTOPATHOLOGY.

In histologic structure the lesions bear considerable resemblance to those of verrucous tuberculosis and carcinoma, yet differ distinctly from both. Sections show a very uneven surface, marked by irregular projections and depressions, the whole covered more or less with irregular masses of débris, consisting of pus, blood, epithelial cells, and various bacteria. The horny layer varies greatly in thickness, being destroyed in places; in others extending in thickened masses deep into the corium between the distorted papillæ.

The striking and characteristic changes occur in the rete, which is the seat of extensive hyperplasia, sending down processes deep into the corium. These processes are exceedingly irregular in size and shape, and send out branches in all directions. They contain the miliary abscesses which are peculiar to this disorder. These abscesses vary in size from a group of half a dozen leucocytes to those which are large enough to be recognized by the unaided eye. They are found in all parts, both superficial and deep, of the hyperplastic epithelium, in places breaking through to the surface above or to the corium below. They contain leucocytes, nuclear fragments, detached epithelial cells, epithelial detritus, red blood corpuscles, the organism peculiar to the disease, and in most cases giant-cells. The epithelial cells surrounding the abscesses are flattened mechanically, but apparently take no active part in the process. The rete everywhere is the seat of more or less edema, polymorphonuclear leucocytes being scattered throughout, both between and within the cells. The rete cells are, as a rule, large and swollen, the prickles being very conspicuous and the intercellular spaces increased. The basal layer of columnar cells is preserved in all the processes. Premature cornification, more or less complete, is seen in scattered individual cells, in groups of cells, and occasionally in isolated epithelial whorls. Single giant-cells, surrounded by a few leucocytes, are occasionally seen in the epithelium at some distance from the corium. (Figs. 18 and 21.)

The corium is the seat of subacute, chronic and occasionally acute inflammatory changes. Miliary abscesses similar to those found in the epithelium are seen also in the corium. The infiltration consists chiefly of leucocytes, young connective tissue cells and plasma cells, and is sometimes very dense.

though in most cases it is more or less diffuse, and, as a rule, can be detected about the blood vessels, where other changes are slight or wanting. The vessels themselves frequently show hyperplasia of all their coats. Mast-cells and giant-cells are frequently seen, but vary in number and character in different cases. Tubercle-like nodules are seen in some instances. In some cases hyalin bodies have been demonstrated in plasma-cells, in giant-cells and in new connective tissue cells. The appendages of the skin apparently take no active part in the process, but, as a rule, disappear early where the infiltration is at all marked. In areas of dense infiltration, the collagen of the corium is completely destroyed.

The organisms characteristic of the disease are found in the miliary abscesses both of the epithelium and of the corium, between the epithelial cells and in the corium, and are always surrounded by more or less evidence of inflammation. (Figs. 21 to 29.) Giant-cells frequently contain one or more of the parasites. The number present varies greatly in different cases. A good section will show from two or three to half a dozen organisms. Other sections will show none, while again a dozen organisms may be recognized in a single field of the microscope. They occur usually in pairs of unequal size, but also singly and in groups. Distinct budding forms can be found readily or after careful search. The organisms show well in sections stained with hematoxylin and eosin, but methylene blue is, on the whole, the most satisfactory stain for showing different parts of the organism. Sections stained for us by Dr. Ormsby with methylene blue and orange tannin, according to Unna's method, have given, on the whole, most satisfactory specimens.

The simplest method of demonstrating the fungus is by placing fresh or hardened unstained sections, teased tissue, or pus between a slide and cover-glass with a drop of water, 10 to 30 per cent. solution of potassium hydrate, or equal parts of liquor potassæ and glycerin. The organisms then appear as double-contoured, highly refractive bodies, in some of which granular contents, vacuoles, or shining, spore-like bodies can be distinguished. (Fig. 34.) A strong solution of potassium hydrate soon disintegrates the tissue cells, but has no influence on the organisms, which consequently show more clearly than in a moist preparation made with water. When well stained, the parasite appears as a round, oval, or slightly irregular body, having a well-defined, double-contoured, homogeneous capsule, which resists the prolonged action of strong alkalies and acids; and a finely or coarsely granular protoplasm, which is usually separated from the capsule by a clear space of varying width. A clear vacuole, varying greatly in size, is seen in some organisms. The diameter of the organism varies, as a rule, from seven to twenty microns, though both larger and smaller forms are occasionally seen. Budding forms in all stages of development have been noted.

CULTURES.

The organisms may be obtained from the miliary abscesses and also from the teased tissue and pus. The best method is to clean thoroughly with alcohol or ether a surface showing miliary abscesses. Some of the smallest and deep-seated abscesses are opened with a disinfected needle, preferably with the aid of a magnifying glass, care being taken to avoid damaging the surrounding tissue. Media inoculated with minute quantities of the tenacious mucus or muco-pus so obtained will show in the majority of instances pure cultures of the organism. In our recent work, more than 50 per cent. of the tubes so inoculated have grown pure cultures of the organisms, while less than 10 per cent. have been contaminated with other bacteria. It is always advisable to inoculate as large a number of media as possible directly from the abscesses, as it sometimes happens that the organism will grow on one or two media and on none of the others. Ordinary media may be employed. Among the best are beer-wort, glycerin and glucose agars. Maltose agar (according to the formula of Sabouraud) gives a more luxuriant growth with some of the fungi, but on the whole has been less successful in our hands in obtaining cultures from the abscesses than glycerin or glucose agar. Most of the organisms grow best in a medium that is slightly acid.

Cultures made from teased tissue and from the larger and more superficial abscesses are often contaminated with pus-cocci. The fungi have been obtained repeatedly, however, in pure culture on most of the ordinary media from pus abscesses of considerable size, leaving little doubt that the organisms are in themselves pus-producing.

In cultural features the organisms from different cases have varied so widely that it is quite possible they will have to be classed in distinct botanic groups. On the other hand, individual organisms have been shown to vary greatly with the media employed and with other circumstances of culture. As the result of some of our observations, we are inclined to believe that in some cases there may be two varieties of a given species present. This hypothesis would explain some of the phenomena we have observed and would be in keeping with the findings of Hansen, who has demonstrated that the yeasts often occur in nature in groups of allied varieties. Before a rational attempt at classification can be made, the development of each of these organisms from a single cell must be observed and the life-history of each thoroughly worked out. Such study has not been as yet carried out with any one of these organisms.*

APPEARANCE OF THE CULTURES.

For convenience, the following descriptions are limited to appearances on glycerin and glucose agars, as these are stock media in most laboratories and, on the whole, give very satisfactory results for subcultures in practically all organisms, though in some instances primary inoculations have not been so successful as on other media.

The time required for the development of the different organisms in the original cultures varies from 2 to 16 days, the majority showing a growth in from 2 to 8 days. Subcultures appear in from 2 to 5 days. In gross appearances the cultures may show: (*a*) slightly elevated, white, smooth colonies or irregular areas following the track of the needle; (*b*) a translucent, gelatinous or yellowish-brown and pasty growth (Fig. 32, tube 17); (*c*) a roughly granular surface, which may eventually form prominent folds and depressions (Fig. 32, tube 7); (*d*) a light, white (in older cultures slightly yellow or yellowish-brown) fluffy growth, with short or long aërial hyphæ (Fig. 32, tube 18); or (*e*) a central white, elevated portion, which may be fluffy or covered with short projections like white hairs, and which is surrounded by a translucent, non-elevated zone (Fig. 35). With very few exceptions, the growth extends more or less into the medium and becomes closely incorporated with it.

Moist preparations from the cultures may show budding organisms; or mycelium that may be fine, homogeneous, and branching, more or less segmented, with or without lateral conidia (Fig. 31), and which may contain few or many highly refractive bodies, varying in size, which are probably spores, though in some instances they may be oil-drops. Mingled with the mycelium may be seen round, oval, or irregular double-contoured bodies, varying greatly in size, and more or less filled with highly refractive globular bodies. (Fig. 30.)

Fig. 32 illustrates very well the great variability of some of the organisms. Nos. 17 and 18 were both inoculated from No. 7 on the same day, and were grown under the same conditions. From No. 17 growths similar to No. 18 have been grown, and from No. 18 growths like No. 17 have been recovered. No. 7

* A former assistant did considerable work for us during a period of two years on the organisms from these cases, and even published the records; but the work was never carried to a successful termination, and as we have reason to doubt the trustworthiness of some of the findings reported, we are beginning again a systematic study of the organisms from all of our cases.

is a later stage of development of a growth like No. 17. Nos. 7 and 17 are on glycerin agar; No. 18 on glucose agar. Cultures almost identical in appearance with No. 18 have been grown also on glycerin agar. Cover-slip preparations from No. 18 show chiefly fine mycelium, also a few round bodies like those shown in Fig. 30, but smaller. A similar preparation from No. 17 shows a coarser, segmented mycelium containing spore-like bodies, lateral conidia, and more of the round bodies containing globules. Fig. 30 is a moist cover-slip preparation from No. 7. In moist preparations taken from No. 7 two weeks later, the majority of these double-contoured bodies were partially or completely emptied of the spore-like bodies, which appeared in groups outside the capsule, the number in each instance corresponding to the number necessary to fill the capsule. A ruptured capsule or pod with escaping "spores" has been demonstrated several times. These spore-like bodies exhibit Brownian movement both outside the capsule and within the capsules which are partially empty. Hanging drops from Nos. 7, 17, and 18 have practically the same characteristics. No growth is visible for two or three days, when there occurs a rapid growth of fine mycelium. Mingled with it are a large number of the spore-like bodies of various sizes undergoing Brownian movement. Though watched for two weeks, these bodies underwent no further development, and their true nature is not yet determined.

In specimens stained with osmic acid and Sudan iii the capsules, both of the round bodies and of the mycelium, are very faintly tinged; the spore-like bodies are somewhat darker but much less deeply stained than fat globules. With iodin the results are similar to those obtained with osmic acid or Sudan iii, but less pronounced, showing that the bodies are not starch granules.

In hanging-drop and on plate cultures some of the organisms produce varying numbers of oxylate of calcium crystals.

ANIMAL EXPERIMENTS.

In a number of cases animals have been inoculated with pure cultures of the organism, resulting in the production of abscesses or granulomatous swellings at the site of inoculation, from which the organism has been again cultivated. Granulomatous nodules have resulted also in the deeper-seated organs, from which the organism has been recovered in pure culture, the animal usually dying from a form of chronic toxemia or marasmus. In the majority of animal inoculations the results have been negative.

DIAGNOSIS.

Pathognomonic symptoms are exceedingly rare in the entire list of medical and surgical diseases, and at this time it can not be said definitely that the peculiar miliary abscesses described above are found in this disorder only. It is true, however, that miliary abscesses of the peculiar type described—very minute, the smallest requiring a magnifying glass for their discovery; deep-seated as well as superficial; the contents being a peculiar, tenacious muco-pus—have been observed in all cases examined by us during the past two years; while we have been unable to find just such abscesses in a large number of cases of syphilis, tuberculosis and epithelioma in which we have searched for them. Lesions presenting these abscesses and the characteristic border suggest at once cutaneous blastomycosis.

The readiest means of making the diagnosis is to place the contents of one or more of the abscesses, or a bit of teased tissue, between a slide and cover-glass with a drop of a 20 or 30 per cent. solution of potassium hydrate. If distinct budding organisms are found (Fig. 34), which resist the action of the alkali after the tissue and pus cells have largely disintegrated (a change requiring from ten minutes to one hour), the diagnosis is practically established and needs only verification by obtaining cultures of the organism and by histologic examination of the tissue. Tissue for histologic examination should not be hardened in formalin, as it produces certain changes in cells that may be confused by the inexperienced with blastomycetes.*

The disorder could be confounded with syphilis, if ever, in rare cases only, as the symptoms of the two disorders have very little in common. The late manifestations of syphilis are usually circinate in outline, and show in some part of the progressing border the elements—tubercles or ulcers—of which the whole is composed, instead of the smooth, abscess-containing border of blastomycosis. Lesions of syphilis do not persist for years as wart-like elevations without showing in some parts characteristic ulcerations. It is, furthermore, exceedingly rare for such extensive lesions to occur in syphilis and persist for months or years without other evidence or history of the disease being obtainable. Finally, though late lesions of syphilis are seen which refuse to yield to specific treatment, it is certainly to be expected that the majority of cases here presented, if specific, would have disappeared entirely and within a few months under large doses of potassium iodid.

From carcinoma the lesions of blastomycosis cutis are further differentiated by a soft base, by the multiplicity of lesions, by the absence of adenopathy, by spontaneous healing and, finally, by their improvement under the influence of potassium iodid.

Lupus vulgaris in typical development is readily distinguished by its characteristic nodules. Only the hypertrophic and verrucous forms of this disease could be confused with cutaneous blastomycosis. The differential features are practically those considered under verrucous tuberculosis; though the fact that the earliest age at which blastomycosis has appeared is twenty, and that in a majority of cases it first appeared after forty, is of value in the diagnosis.

From verrucous tuberculosis the diagnosis is difficult and depends chiefly on the characteristic border and abscesses of blastomycosis of the skin, on the results of histologic and bacteriologic examination, and on the fact that the morbid condition improves under the influence of the iodin salt. The lesions are, however, larger, more rapid in development, more numerous and more frequently seen on the face than are lesions generally recognized to be tuberculous. The soft, supple scar left by blastomycosis is wholly unlike the deforming scar of tuberculosis. Further, the adenopathy and constitutional symptoms of tuberculosis are wanting. In a doubtful case, tissue should be examined for tubercle-bacilli and guinea-pigs inoculated. In one case (to be reported in detail later) which was observed carefully by us and in which the diagnosis was verified by histologic and cultural findings, the presence of tuberculosis in the early stage was excluded by negative results from repeated examination of tissue for tubercle-bacilli, and by the fact that the lesions disappeared almost entirely under the influence of potassium iodid. A recurrence of the lesions, presenting a somewhat different clinical appearance and showing but slight improvement under large doses of potassium iodid, was followed by a fatal systemic infection with tuberculosis.

* Tissue for histologic examination should be taken from a progressing border, and should include a portion of normal skin. The incision should be deep enough to include some of the subcutaneous tissue. Small pieces of tissue may be placed at once in absolute, or 95 per cent. alcohol. Larger pieces should be placed for 10 or 12 hours in 70 per cent. alcohol before transferring to stronger alcohol.

Fresh tissue and pus may be preserved for future microscopical examination for several days in a 2 per cent. solution of glycerin, or in a 1:1000 bichlorid solution. For cultures fresh tissue and pus may be kept for a few days in sterile water or in bouillon, but when possible it is much better to inoculate media directly from the abscesses.

Histologically, the miliary abscesses in the rete and in the corium, the extensive leucocytic infiltration, and the characteristic organisms will distinguish cutaneous blastomycosis from tuberculosis, syphilis, or carcinoma of the skin. In blastomycosis the basal columnar layer of the rete is preserved, while in carcinoma it is destroyed.

EXCEPTIONS AND ALLIED CONDITIONS.

The disease has been limited strictly to the skin in all instances except in our Case 2 and in that reported by Busse and Buschke. In one other case systemic infection with tuberculosis followed. In the case reported by Curtis, subcutaneous abscesses occurred, in which the blastomyces were found and cultivated.

In the cases of protozoic dermatitis reported by Rixford and Gilchrist, and others,* the cutaneous lesions closely resembled those of blastomycosis both clinically and histologically, but the organisms proliferated by sporulation only and not by budding or mycelial growth. Moreover, the disease has been fatal in every case. Our Case 2 and Rixford and Gilchrist's first case of protozoic disease have, however, many features in common. In a case of protozoic infection (in which, however, there were no cutaneous lesions), Ophüls and Moffit cultivated an organism which in many respects resembles closely that found in two of our cases. In fragments of tissue received from Dr. Angle of Lincoln, Neb., budding organisms were very numerous and many of them were filled with spore-like bodies. In several microscopic fields, a ruptured capsule with escaping "spores" could be seen, but to what extent the rupture of the capsule was due to formalin, in which the tissue had been hardened, could not be determined. The sporothrix of Schenck, found in two cases of subcutaneous abscesses, is allied possibly to some of the fungi found in blastomycosis.

TREATMENT.

Complete excision of the diseased areas has been successfully practiced in several cases, no recurrence having been reported. Curetting, employed in a number of cases, has not prevented a return of the disease.

Large doses of potassium iodid, first employed by Dr. Bevan in one of our cases, seems to arrest the progress of the disease and produces a marked improvement in the cutaneous lesions. From two to five hundred grains a day have been required in some patients before any effect on the morbid growth was produced. In three of our cases and in two cases reported by others, the disease apparently disappeared under this treatment. In the majority of cases, however, treated with large doses of potassium iodid, healing takes place rapidly over the greater portion of the area involved, but small patches remain, usually of the verrucous border, for indefinite periods; and on the discontinuance of the potassium iodid the disease reappears with as much apparent activity as before. In one of our patients who improved rapidly under the treatment up to a given point, the few remaining verrucous areas and abscesses disappeared after a few exposures to the *x*-ray, leaving a thickened scar, which at present is slowly being replaced with a typical thin cicatrix.

In all cases, cleansing and antiseptic lotions or dry dressings can be used with advantage.

PROGNOSIS.

Out of the thirty-two cases reported, two only have proved fatal. A third patient died of general tuberculosis. Complete excision where practiced has terminated the disease. Under the iodin therapy, the condition improves so decidedly that with the aid of the *x*-ray or other local treatment, the disease should be completely eradicated. The possibility of systemic infection should be remembered.

SUMMARY.

Under the term "cutaneous blastomycosis" (or "blastomycetic dermatitis") have been collected a series of cases presenting a clinical picture differing from that of all other recognized dermatoses. The disorder has also a characteristic histopathology. The organisms in tissue have been in every case of the budding variety. In cultures they have appeared as budding or as mycelium-forming fungi, of which there are probably several varieties.

While the disorder occurs independently of all other diseases, it has been followed in at least one instance by tuberculosis. Secondary pus infection of the lesions is common, and there is no reason apparent why secondary infection with tubercle-bacilli or other bacteria should not occur. It is possible also that the fungous disease is capable of implantation upon the lesions of other disorders.

Practically all cases of the disease in which potassium iodid has been employed in large doses have improved decidedly under its administration, but only a small percentage of patients recovered entirely under that treatment alone.

Cutaneous blastomycosis and protozoic dermatitis are undoubtedly closely related disorders, if not varieties of the same process. It is possible, however, that the blastomycetes and other fungi are capable of producing in man a series of disorders of different clinical types.

It is not within the scope of this paper to consider the experimental researches on blastomycetes, protozoa, cancer bodies, cell inclusions, and allied questions, which are at present receiving so much attention in the medical and scientific world. For valuable contributions to these subjects and for full references to the works of previous investigators, the reader is referred to the Second Annual Report of the Cancer Committee to the Surgical Department of Harvard Medical School.[1]

NARRATION OF CASES.

CASE I.[2]—F. M., aged 47. Duration of disease two years;* typical histology and organisms in tissue. (Figs. 25 and 27.) Under long-continued and large doses of potassium iodid, all signs of the disease disappeared excepting a few small verrucous areas on the borders, where miliary abscesses could be detected. The case was reported as greatly improved. The man then spent a year in the country, during which time he neglected treatment. Early in January, 1902, he was again seen in Cook County Hospital, the disease having extended over the greater portion of the arm and forearm, with so much apparent destruction of tissue that it was thought an amputation might be necessary. Three months of treatment with large doses of potassium iodid, and boric-acid dressings have resulted in replacing three-fourths of the diseased area with scar-tissue. On three different occasions, each time on a number of different media, we obtained a mold fungus in pure culture from the miliary abscesses, though similar attempts made while he was under observation two years before were unsuccessful. (We are indebted to Dr. M. M. Portiss for tissue obtained from the patient while in the hospital.)

CASE II.[2]—C. W. T., aged 33. Duration of disease seven years; histologic structure and organisms in the tissue are both typical (Figs. 18, 21, 22, 23 and 24); cultures not obtained. The case was reported by the author as one of cutaneous blasto-

* For references see report of a case of Dr. D. W. Montgomery, British Jour. of Dermatol., October, 1900.

* In each case is given the duration of the disease at the time it was reported.

mycosis, in which death occurred from miliary tuberculosis, that being the first postmortem report. In a later report,[3] Dr. Jas. W. Walker, who made the autopsy, showed that the nodules in the lungs contained blastomycetes in abundance and no tubercle-bacilli. This is the only case recorded in which cutaneous blastomycosis of a number of years' duration has been followed by systemic infection. Together with the Busse-Buschke case, in which systemic infection was coincident with the cutaneous lesions, this case might be considered as a connecting link, clinically, between strictly cutaneous blastomycosis on the one side and protozoan disease with systemic infection on the other.

CASE III.[2]—T. R., aged 38. Duration of disease four years; histology and organisms in tissue both characteristic (Figs. 17 and 28); no cultures obtained. After taking large doses of potassium iodid more or less continuously for nearly two years, all traces of the disease except the scar disappeared. The patient is still under observation. There has been no recurrence and no treatment for one year. The ectropion has been overcome by plastic operations by Dr. Dodd.

CASE IV.[2]—F. S. S., aged 33. Duration of the disease two years; histologic structure and organisms in the tissue typical; cultures obtained (Figs. 19, 26, 31, 35, 36, 37, 38, and 39.) Under large doses of potassium iodid, the disease almost entirely disappeared, two or three small areas only remaining. During the past year, though the treatment has been continued the greater portion of the time, very small, flat, verrucous areas persist, and on withdrawal of the medicament for a short period begin to extend to the adjacent skin. During one of these intervals of treatment, a small ridge extended over the upper eyelid. The organism has been obtained repeatedly from the minute abscesses which appear soon after the suspension of treatment.

CASE V.[2]—J. H. C., aged 45. Duration of disease four months; histologic structure in many respects characteristic, but differing somewhat from that of the other cases. The organism (Figs. 40 and 41), a yeast fungus, obtained in pure cultures from the center of the growth, was never demonstrated in the tissues, owing probably to lack of proper technic, as the organism in cultures closely resembled in size and staining qualities infiltration-cells. The condition improved somewhat under potassium iodid. Excision was followed by complete recovery, and no return of the disorder.

CASE VI.[1]—Mrs. A. M., aged 28. Duration of disease two years; histologic structure and organism in tissue both typical; pure cultures of a mold fungus obtained from the abscesses on different occasions. (Figs. 30, 32 and 33.) After six months of continuous treatment with large doses of potassium iodid, no trace of the disease save scar-tissue was left. No recurrence nine months after treatment was suspended. For this case the author is indebted to Dr. W. L. Noble of the Chicago Clinical School.

CASE VII (not previously published).—Miss S. E., aged 21, is in good general health, though she has enlarged glands in the cervical region, and two of her sisters died of tuberculosis. The lesions are located on the right buttock. The first one began as a crusted papule fifteen months prior to the time the photograph was taken; the second appeared a few months later. Their development and their clinical appearances are those described as characteristic of cutaneous blastomycosis. The papillary projections were fine and the lesions comparatively dry and wart-like. But a small amount of secretion could be pressed out between the papillary elevations from the base below. The borders showed characteristic miliary abscesses, from which on a number of occasions and on different media a mold fungus was cultivated.

The histologic structure and organisms in the tissue were practically identical with those found in other cases of cutaneous blastomycosis. The lesions improved rapidly under large doses of potassium iodid, but refused to disappear entirely, a few miliary abscesses appearing promptly on the withdrawal of the drug. A few treatments with the *x*-ray have caused, in the course of eight weeks, complete disappearance of the abscesses and of the verrucous tissue. There remains yet some hypertrophic scar-tissue, which is apparently slowly disappearing. The case is still under observation.

CASE VIII.[4]—Mrs. M., aged 51. Duration of disease four years; histologic structure and organisms in tissue characteristic (Fig. 29); cultures of what appeared to be a mold fungus were obtained on two different occasions, but subcultures were not successful, and the organism has not, therefore, been studied satisfactorily. This patient has been unable to take potassium iodid in large or continuous doses, and, though the condition has improved somewhat, the lesions have not entirely disappeared. She lives at a distance and is seen only at long intervals.

CASE IX (not previously published).—A. B., aged 54. Duration of disease four months. This case differs clinically from all others that have been recorded, in that the entire lesion presented an appearance very much like that of the hypertrophic scar-like tissue which in some cases temporarily replaces the verrucous patches, and the patient stated that the growth never had been wart-like. The lesion was distinctly elevated, smooth, pinkish-white in color, more or less covered with fine telangiectases, and showed numerous characteristic miliary abscesses on the surface, especially on the border. The base of the tumor was soft and more or less infiltrated with sero-pus. A minute opening (which shows plainly in the photograph, Fig. 11) was made in the surface and the contents shown to be of a gelatinous or myxomatous character. Bits of this tissue and of the tenacious muco-pus from the abscesses were mounted in potassium hydrate and disclosed characteristic budding organisms, such as are shown in Fig. 34. Tissue for histologic examination was not granted by the patient, and but one hurried opportunity was given for obtaining cultures. The media employed, unfortunately, were limited in variety and amount and were not very fresh, and thus no cultures were obtained, all the tubes but one remaining sterile. The man was put on large doses of potassium iodid. At the end of four months he again presented himself for examination. The lesion had entirely disappeared, leaving only a smooth, soft, non-attached scar, a little lighter in color than the normal skin. A communication received from him six months after suspending treatment stated that there had been no recurrence. This patient's individual and family history were excellent. No history or evidence of tuberculosis or syphilis could be obtained.

CASE X (not previously published).—Mrs. D. S., aged 56, gives a remarkably good family and personal history. She has enjoyed unusually good health all her life except for several brief periods of illness. For eight years she had been absolutely well. At present she has no evidence of constitutional disturbance, except that she is extremely nervous and very much worried regarding her condition and unsightly appearance. Early in November, 1901, she experienced a severe mental shock. Three or four weeks later there appeared on the dorsal surface of the left hand, between the first and second metacarpal bones, a small crusted lesion, which gradually spread to its present size (Fig. 13). The lesion was slightly elevated, somewhat verrucous and sharply outlined. Within two weeks after the appearance of the first lesion, similar lesions appeared on the anterior surface of the left leg, a little below the knee; on the left heel; on the anterior surface of the right leg; on the right big toe; on the inner surface of the middle third of the right thigh; and on the left palm, at the base of the thumb. The patient states that during this time there appeared subcutaneous lumps or swellings, varying in size from a bean to a walnut, as follows: Two on the lower half of the left breast as large as walnuts; three smaller ones in the tenth and eleventh intercostal spaces; six or eight similar but smaller lesions on the upper and outer portion of the left thigh. All of these swellings became slightly red on the surface and very sensitive to the touch, but they never became verrucous, crusted, or ulcerated. About two months after their appearance they began to disappear gradually and become less sensitive. Some of these were treated for a time with galvanic electricity.

In the early part of January a lesion appeared on the upper lip, and another on the proximal phalanx of the right index finger. On March 1, while under our observation, a small

papule appeared on the second phalanx of the left index finger. This in a few days became capped with a crust, and in the course of four weeks had developed into a flat papule, a quarter of an inch in diameter, which presented all the characteristics of the disease, including the verrucous surface and the sloping border with miliary abscesses. On two occasions and on six different media, cultures of a mold fungus were obtained from the abscesses of the lesions situated on the lip, on the left hand, on the right index finger, and on the middle third of the right thigh. Tissue taken from the lesion on the anterior surface of the right leg shows the characteristic histologic structure. Typical organisms have been demonstrated in the tissue. Under large doses of potassium iodid, the lesions are rapidly becoming less conspicuous, though none of them has yet entirely disappeared. We are indebted to Dr. P. B. Sauer for the privilege of studying and reporting this case.

This case is unique in that a number of lesions appeared on different parts of the body within a very brief period, a record that would argue against the multiplicity of lesions being due to auto-inoculation; yet the lesions are all situated within easy access of the hands. The subcutaneous lumps or swellings described by the patient had largely disappeared before she came under observation. Such as remain are apparently lymphatic.

CASE XI.[5]—R. B., aged 57. Duration of disease five years; histologic structure and organisms in tissue typical; budding organism cultivated. The disease almost disappeared under large doses of potassium iodid, but recurred on suspension of the drug. As the man had periods of neglecting treatment, the disease was alternately better and worse. About a year after the case was reported, and after a longer period of neglect than usual, the arm was so extensively involved that the man became discouraged and applied to the hospital for amputation. He has since disappeared from observation. The photograph shows a large number of new lesions which appeared over the surface of the old scar soon after cessation of treatment, and after it was supposed the disease was practically eradicated.

CASE XII.—Mrs. J. K., aged 33 (from Dr. Senn's clinic, published here with his permission). Duration of disease two years; histologic structure and organisms in the tissue typical; a mold fungus recovered from the tissue. The lesion (from the face) was excised before the nature of the disease had been demonstrated.

CASE XIII.*—Mr. S., aged 73. Duration of disease four years; histologic structure and organisms in the tissue characteristic. A mold fungus was cultivated from the abscesses and from tissue. The lesions improved decidedly under potassium iodid, but not until very large doses were employed. He disappeared from view for six months and then appeared at the Cook County Hospital, where he is now under treatment by Dr. L. B. Baldwin, who reports that the disease has extended over a large part of the face and anterior portions of the scalp.

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A CASE OF SYSTEMIC INFECTION BY A PARACOLON BACILLUS PROBABLY SECONDARY TO TYPHOID FEVER.

WITH THE CLINICAL PICTURE OF ACUTE CHOLECYSTITIS.*

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It would appear from a series of publications which have appeared during the last six years that the members of the group of bacilli intermediate to the typhoid and colon bacilli are destined to become of as much interest in surgical pathology as the typhoid bacillus.

MENTION OF PUBLISHED CASES.

It is not our purpose on this occasion to give a complete summary of all the cases of this form of infection that have been described, but it will be of interest to make some note of the cases which have a direct surgical bearing.

If we exclude for the present the scattered cases of cystitis and pyelonephritis in which bacilli of this group have been found in the urine, apparently either primary or secondary, we find that the first striking instance of such an infection of surgical interest is the second of the two cases reported by Achard and Bensaude in a paper entitled "Paratyphoid Infections." Their case was that of a child with acute bronchitis and a moderately-high fever. The bronchitis subsided almost entirely, but the fever gradually rose and remained for almost three weeks. At the end of two weeks there developed a suppurative inflammation of the left sterno-clavicular joint. On incision some pus was evacuated which contained a pure culture of a paracolon organism.

Widal and Nobecourt later published a case, in a man

* This case was published with our permission by a former assistant, Dr. H. T. Ricketts.[6] This monograph includes very brief reports of Case 12 and of three laboratory cases; also a premature and unauthorized report of the results of much of our work and of our observations for a period covering more than two years. Our published and unpublished records are used freely, though credit for this material is for the most part withheld or given obscurely. A careful reading, for example, does not disclose the fact that of the 68 pages devoted to "new cases," the first 44 are given to five cases previously published,[2] and that 7 pages are devoted to two cases reported by us before the American Dermatological Association, May 30, 1901.[4] In his list of cases, Dr. Ricketts has incorporated Case 2 of our present series, though he never saw the patient and did no work on the case. This case is of special interest, in that it is the only one recorded in which long-continued blastomycosis of the skin has been followed by systemic infection. Repeated reference is made to it in the work (pages 415, 492, 495, 497, 498), always as "Case 5 of this (his) series." No mention is made of its previous publication,[2] though in a foot-note it is stated that "the report is in brief as given by Professor Montgomery." Dr. Ricketts' "Fig. 1c" (his name is affixed to the plate) is from our photomicrograph of a slide prepared by me from this case.[2] The photographs and all the photomicrographs but two are ours. No acknowledgment for them can be found in the work. In two references in the Bibliography to our publications, a claim is made to a share in the original report of "Case 5" above referred to, and to a participation in a review of the literature of blastomycosis by Dr. Hyde.[2]

On pages 516 and 517 are tabulated the more or less completely recorded cultural features of 17 organisms, 7 of them being from "new cases." An examination of the tables and of the descriptions in the text shows that but 3 (2 of which were previously reported) of these 7 organisms have been the subject of careful observation, and that in none of these 3 has an attempt been made to study the life-history of the organism or its development from a single cell. The report on the other 4 organisms is limited to observation of their gross appearances on ordinary media (in tubes only, no plates), and to an examination of a smear or hanging drop. Of one of the organisms subcultures were never obtained. The work is evidently far from complete, yet the writer indulges freely in generalizations and in attempts at classification, including the formulating of a new name, under which the work is published.

* Read in abstract before the Surgical Section of the New York Academy of Medicine.

of 31, of an abscess developing in the neck near the esophagus, from which was obtained a pure culture of an organism which appears to be identical, as far as can be determined from the meager descriptions, with the organism of Achard and Bensaude.

Cushing's case is the best studied thus far. The patient was a man of 27 who, nine months before admission to the Johns Hopkins Hospital, was sick for ten weeks with a fever which was described as being a typical attack of typhoid fever. He had a relapse beginning with an epistaxis. During convalescence a costo-chondral osteomyelitis developed at the level of the fifth rib. Six months later this broke open and discharged pus. In this case also the pus showed an organism which had some of the properties of the typhoid bacillus and some of those of the colon bacillus. The patient's serum gave an agglutination reaction in high dilutions with the organism, but gave no reaction with the typhoid bacillus. On the other hand, sera from cases of typhoid fever which gave a prompt agglutination reaction with the typhoid bacillus gave no reaction when tested with the organism found in the pus. Cushing raises the question whether the original attack was typhoid fever, or whether it was due to the same organism which was found in the osteomyelitic focus. He says that it is unusual to find in post-typhoid lesions organisms of intestinal origin except the typhoid bacilli and the pyogenic skin cocci.

Cushing refers to a case of osteitis described by Blumer, in which the bacterium coli was supposed to have been found in a post-typhoid rib abscess. As Cushing remarks, it is possible that this is another instance of a paracolon infection, because the organism described by Blumer produced alkali in milk and did not ferment lactose. We might mention here that, roughly speaking, the characteristics of the typhoid, colon and intermediate groups are as follows: The typhoid bacillus produces acid in the presence of glucose, no visible gas; it fails to ferment lactose and sucrose. In milk it develops a slight grade of (usually) permanent acidity. The colon bacillus ferments glucose with the production of acid and visible gas, ferments lactose in a similar manner and may or may not ferment sucrose. Milk is usually coagulated in from one to seven days with the development of an acid reaction and the presence of gas bubbles. The bacilli of the intermediary group, or the so-called paracolon bacilli, act like the colon bacillus as regards glucose and like the typhoid bacillus as regards lactose and sucrose. In milk they produce a slight transient acidity followed by a more or less marked alkalinity.

THE PRESENT CASE.

The case which we are about to describe is of interest because of its striking resemblance to a condition so frequently referred to surgeons for operative treatment.

The clinical history will be given in full, but the pathologic and bacteriologic findings in abstract only, as it is the purpose of one of the writers to make the latter the subject of a special communication.

CLINICAL HISTORY.—A. A. BERG.

Aug. 29, 1901, I was asked by Dr. Hubbard of Boro Park, Brooklyn, to see with him C. I., a clerk, 33 years of age. The patient had been the father of six children, all of whom had died in early infancy, most of them having been "blue babies." His wife had never aborted; he had never had gonorrhea or syphilis; he had no alcohol or tobacco habits.

Commencement.—Ten days before the evening upon which the writer saw the patient, the latter had suffered while at business with a sudden attack of nausea, vomiting and feeling of marked weakness. The vomiting recurred once and the patient felt so sick that he had to stop work and go to his home. Dr. Hubbard saw him at once upon his return home. The patient complained of severe epigastric pain and was moderately prostrated. His temperature was 100 F. and there was considerable abdominal distension. A cathartic was administered and after a free evacuation of the bowels the patient felt much better. The next morning the temperature was a little above 99 F. and the patient was much improved. He stayed in bed, however, for two days, during which time the temperature was not taken on account of the comparative well-being of the patient. After these two days he was up and about but did not feel well enough to go to work. During the following five days he apparently had no fever and did not present himself to his physician.

Recurrence.—On the seventh day he was again suddenly seized with intense epigastric pain. The pain was colicky in character and though constantly present was characterized by periods of very marked exacerbation. Although mainly localized in the epigastrium, it occasionally radiated to the back. On this day he vomited twice and had a temperature of 104.2 by mouth. He was again given a cathartic (calomel) which was followed by two copious evacuations, but the patient did not this time experience the same relief as during his first attack. The next morning the temperature was 101.4 by mouth, rising to 103 in the evening. The pain continued with marked severity, and, according to the doctor, was typical in every respect of biliary colic, requiring hypodermic injections of morphin to relieve it. The patient felt very sick; he was slightly jaundiced, but the stools were black in color (from bismuth that had been taken).

EXAMINATION.

The patient, when seen by me, was evidently much prostrated. His temperature was 104.6 per rectum; his pulse soft and bounding and about 120 to the minute. There was slight subconjunctival icterus; the urine rather scanty and high-colored. The tongue was moist and slightly coated. The lungs practically negative. The apex beat of the heart was in the fifth space outside of the mammillary line. There was a marked heaving of the precordium which extended to the epigastrium. There was a marked systolic murmur over the entire base with its greatest intensity at the second left intercostal space. The second apical sound was accentuated. The heart was dilated, extending 1½ inches to the right of the sternum and one finger's breadth beyond the left mammillary line. The liver extended from the fourth space in the mammillary line to the free border of the ribs. Its free edge was not palpable; in the epigastrium and adjacent part of the right hypochondrium there was marked pain and tenderness. At this site could be felt a very painful mass the size of a large lemon. There were numerous friction râles over the upper part of the liver. The right rectus muscle was rigid. The spleen appeared to be normal in size. There was no roseola.

The probable diagnosis of abscess of the right lobe of the liver pointing in the epigastrium, or of an empyema of the gall bladder was made, and exploratory incision was advised. The patient delayed two days hoping for an improvement in his condition and then entered the Mt. Sinai Hospital. His condition on admission was not materially changed. The temperature had continued high, being 105½ on his entrance to the hospital and his pulse 120. He was very much prostrated, having had high temperatures ever since the onset of the second attack. The physical signs were the same as described above. A Widal reaction proved negative in dilution of 1 to 20. There was no Ehrlich reaction in the urine. The leucocyte count was 15,000.

LAPAROTOMY. EXPLORATION OF THE GALL-BLADDER AND BILE DUCT. ASPIRATION OF THE LIVER AND GALL-BLADDER.

September 1.—Under chloroform anesthesia, an incision was made through the right rectus sheath extending three inches from the costal margin, the muscle being retracted toward the median line. The peritoneal cavity was opened; there was no fluid in it; the liver came down to the free border. Corresponding to the region where the patient had complained of pain and tenderness was an enlarged Riedel's lobe. The surface of

the liver was for the most part smooth, and over its convexity in the axillary portion was some fresh fibrin. Its color was normal and there were no areas of induration to be palpated. The gall-bladder was moderately distended. Its surface was smooth, its walls apparently not materially thickened. It was found to be impossible to express the contents of the viscus through the bile ducts into the intestine. This feature was very marked. No stones could be palpated within the gall-bladder. Exploration of the ducts showed them to be but slightly thickened and they contained no calculi. The kidney, stomach and pancreas were normal, likewise the appendix. Aspiration of the liver in many directions yielded negative results; aspiration of the gall-bladder yielded thick black bile. The results of the examination will be given later. The puncture in the gall-bladder was closed by Lembert sutures and a small cigarette drain passed down to it. The abdomen was closed by through-and-through sutures.

SUBSEQUENT EXAMINATION.

September 2.—The patient had rallied well from the operation. His temperature fluctuated between 101 F. and 104; pulse 98 to 120. Epigastric pain continued severe. The abdomen was somewhat distended; the friction râles over the liver were more numerous. The bowels were moved by enema. The urine showed no bile, was acid, contained albumin and hyalin and granular casts.

September 3.—The general condition was good. Pulse varied between 118 and 136; the temperature between 102.4 and 104.6. The Widal reaction was negative in dilution of 1 to 20. There was marked subconjunctival and general icterus. The urine contained bile. The bowels were moved by calomel and salines. The urine showed a positive Ehrlich reaction.

September 4.—The general condition was not so good. The patient was apathetic and at times irrational. Temperature fluctuated between 102.8 and 105; the pulse rate between 128 and 140. The jaundice was marked. The wound was clean and united, there being only a slight serous discharge through the small drain opening. The liver was apparently not increased in size. Epigastric pain was less. The friction râles over the liver were still marked. There was some slight dulness and exaggeration of breathing at the right apex posteriorly. The systolic murmur at the base of the heart remained the same.

September 5.—Apathy continued with mild, quiet delirium. Marked jaundice; general condition poor. Temperature between 102.4 and 106.4; pulse 128 to 132, soft and bounding. Friction râles over the liver very marked; aspiration of the liver in the axillary region over the area of friction râles gave negative results. Cold packs were administered to reduce the temperature, with little effect.

September 6.—Widal reaction was negative.

September 7.—The patient was more apathetic, delirious and jaundiced. The wound had completely healed. Temperature up to 105. Cold packs continued with somewhat better effects.

September 8.—Examination of the blood showed red cells 2,700,000, leucocytes 10,700, hemoglobin 50 per cent. Widal reaction positive in dilution 1 to 200.

September 9.—General condition remained the same. Temperature between 101.4 and 105.3; pulse 120 to 140. Marked apathy and jaundice. The patient vomited repeatedly; the vomitus was brownish-black in color, not fecal in odor. Pulse was weaker; face was pinched, and there was Hippocratic facies.

The blood examination showed the following:

Polynuclear neutrophiles 84 per cent., small mononuclear 10 per cent., large mononuclear 5 per cent., eosinophiles 1 per cent. The total number of leucocytes was 48,000. The urine was acid, containing albumin, hyalin and granular casts and bile. During the night the patient's pulse became more and more feeble, temperature remained high, and towards morning death occurred.

REPORT ON THE BACTERIOLOGIC AND THE POSTMORTEM EXAMINATIONS.

E. LIBMAN.

The fluid from the gall-bladder received on September 1 was directly plated and there was found a pure culture of an organism of the intermediate group. To determine whether the presence of organisms in the gall-bladder might not be due to excretion of bacilli from the blood, a blood culture was made on September 4, 11 cubic cm. of blood being used. There was found a very large number of colonies of an organism identical with that which had been isolated from the gall-bladder. On September 9, about ten hours before the patient died, another blood culture was made in the same manner as the previous one and there was found a large number of colonies of the paracolon bacillus, a few colonies of staphylococcus albus and streptococci. A culture from the urine made the same day showed a number of colonies of the paracolon bacillus and a few colonies of the staphylococcus albus.

A short time after the patient died some blood was aspirated from the heart and the culture showed the same organisms as were found on the previous day. The cultures made from the spleen at the time of the autopsy showed colonies of the paracolon bacillus, of the staphylococcus citreus, staphylococcus albus and streptococci. The contents of the ileum were examined with great care for the typhoid bacillus or the paracolon bacillus, but there were found only two varieties of the colon bacillus, bacillus proteus vulgaris, staphylococcus albus and streptococci.

AGGLUTINATION REACTIONS.

The serum of the patient was tested daily for the Widal reaction after his entrance into the hospital, but always with a negative result in a dilution of 1 to 20 until September 7, when it became positive in the dilution of 1 to 200. This reaction was instantaneous and complete. On September 8 the reaction was positive in a dilution of 1 to 250. On September 9 in a dilution of 1 to 200, and the serum obtained directly antemortem gave the same results.

As regards the reactions of the patient's blood with the organisms found in the gall-bladder, blood and urine, they were of great interest as the reaction usually resulted in the production of threads instead of clumps, a phenomenon which is seen under certain conditions in making serum reactions, particularly in cases of infection by bacilli in the colon group.

Without going into detail here, it is sufficient to state that the serum of the patient from September 3 on gave a positive reaction with all the bacilli isolated in dilutions varying from 1 to 30 on some days to 1 to 100 on other days.

POSTMORTEM EXAMINATION.

The data at our disposal are rather few, particularly because of the great difficulties which stood in our way in attempting to obtain permission for a postmortem examination. We were only allowed to make an examination through the incision.

The heart showed marked hypertrophy of the left ventricle and a lesion of the aortic valve which evidently stood in relation to the traumatism sustained in early childhood, there being a calcareous scar running through the middle of one of the flaps. There was fibrin over the upper lobes of both lungs. The lungs could not be removed for examination. The liver was moderately enlarged; there was a marked perihepatitis; on section it showed the lesions of congestion and parenchymatous degeneration (gross and microscopic examination).

In the gall-bladder there was a small incision. The mucosa was normal. The spleen was moderately enlarged; there was fibrin on the surface. Further exam-

ination showed the presence of acute inflammation, of small areas of necrosis in the pulp, and the presence of enormous clumps of bacilli which were decolorized by the Gram stain. The stomach was markedly dilated; the pancreas showed a moderate grade of interstitial inflammation. The kidneys were normal in size, the capsule was adherent. There was present intense parenchymatous degeneration, thickening of the glomerular capsules and hyalin material in some of the tubules. In the lower ileum there were a number of completely and partially healed ulcers with the remnants of a moderate degree of fibrinous peritonitis on the surface. The mesenteric nodes were moderately enlarged, pale on section. All of the organs were bile stained.

EPICRITICAL REMARKS.

This case is a remarkable one from several aspects. That the patient suffered from a systemic infection from a paracolon bacillus is unquestioned, the organism having been found in the blood, in the urine and in the gall-bladder during life. The presence of staphylococci and streptococci in the second blood culture must be ascribed to an agonal invasion. The development of a positive Widal reaction in dilution of 1 to 250 several days after the patient was admitted into the hospital would make it appear very probable that the patient also suffered from an infection by the typhoid bacillus. The presence of a positive reaction after the blood had given absolutely no reaction for several days shows clearly that the reaction can not be ascribed to an attack of typhoid fever at any considerable length of time previous to his last illness. The positive reaction of the typhoid bacillus can also not be ascribed to the paracolon infection because in all the cases of paracolon infection heretofore reported the Widal reaction has been present even in small dilutions, and in all the experimental work in immunizing animals with organisms of the colon group, a reaction with the typhoid bacillus, if it was developed at all, was developed in only small dilutions as compared with the reaction obtained with the infected colon bacillus itself.

Taking the presence of the positive Widal reaction together with the presence in the ileum of the recently healed and healing ulcers, one can not but conclude that the probability in this case is a strong one that the patient suffered from an ambulatory typhoid to which the paracolon infection was secondary. The absence of the typhoid bacillus in all the examinations prevents one from saying positively that such was the case, but on the other hand, indicates that the paracolon infection must have been secondary and had overgrown the typhoid bacilli which had originally caused the infection of the patient.

In my complete paper on the bacteriologic aspect of this case I shall enter into a fuller discussion of these matters and cite some similar but less striking observations in the literature.

COMMENTS AS TO THE DIAGNOSIS.

A. A. BERG.

When first seen by the writer the history of the patient's illness, the symptoms and the physical findings suggested the following possible diagnoses:

First, empyema of the gall-bladder with cholangitis; second, abscess of the liver with cholangitis; third, typhoid fever with cholecystitis; fourth, infarction in the liver secondary to an endocarditis. The last condition was considered highly improbable for the following reasons: there were no evidences of a recent endocarditis, such as disturbed cardiac rhythm, disturbed compensation, pain over the heart, etc., and there were no evidences of emboli in other parts of the body, nor were petechiæ present. The liver was not enlarged as would have been expected in a case of infarction.

As regards the presence of typhoid fever there was no evidence exclusive of the existence of fever, to bear out such a conclusion; there was no roseola and no evident enlargement of the spleen.

At the time I first saw the patient no Widal test or Ehrlich reaction had been made. On the patient's admission to the hospital these were both negative. The subsequent developments in the case, however, and the findings at autopsy, indicate that typhoid fever had probably been present. This would lead us to the assumption that the typhoid fever had been of the ambulatory type and had run the main part of its course before the onset of the marked abdominal symptoms.

The ruling out of these two conditions brought us to the consideration of an abscess of the liver or an empyema of the gall-bladder and no positive conclusion could be arrived at as to which lesion was present. As against abscess was the absence of evidence of any ulceration of the intestine or of the existence of a suppurating focus in some other part; furthermore, in favor of empyema of the gall-bladder was the pain described by the attending physician as typical of biliary colic (still, the mass that was to be felt in the epigastrium did not feel quite like a gall-bladder—its edge was rather too sharp to be taken for this viscus). The slight jaundice might have existed in both conditions. The friction râles over the liver pointed rather to a hepatitis than an empyema of the gall-bladder, though they may have been dependent upon a cholangitis. The hyperleucocytosis pointed to suppuration. It seemed to the writer that the patient was most probably suffering from an empyema of the gall-bladder with cholangitis and perihepatitis, though an abscess of the liver with perihepatitis could not be altogether excluded, and on this basis operation was undertaken.

According to the postmortem report, the gall-bladder was normal, but our inability to express the bile from the gall-bladder through the ducts, indicated that an inflammatory swelling of the mucosa of the cystic duct was probably present. This obstruction would explain the biliary colic, and sufficient fibrin was found on the surface of the liver to account for the friction râles. The acute degeneration of the liver and the perihepatitis no doubt account in great measure for the jaundice and the severe local symptoms.

CLINICAL MANIFESTATIONS OF THE EARLY STAGES OF CIRRHOSIS OF THE LIVER.*

FRANK BILLINGS, M.D.

CHICAGO.

Among my ambulatory patients, especially in the office, I have been surprised to find a relatively large number who have applied for relief of various symptoms in whom a palpable, usually tender and enlarged liver could be demonstrated. The symptoms, in the main, were in many patients those of neurasthenia, in others myalgia or a mono-neuritis, or, most frequently, some gastro-intestinal disturbance. In a few cases arthritis was complained of and the affected joints showed evidence of that trouble.

* Read at the meeting of the Association of Physicians at Washington, D. C., April 30, 1902.

AN ILLUSTRATIVE CASE.

CASE I.—B. M. F., aged 54, male, lumber dealer, residence Chicago. The father died of tuberculosis. No other history of inherited disease in the family. Has used alcohol to a very moderate and irregular degree. Smokes moderately.

Previous Sickness.—The patient had typhoid fever when 15, from which he made a good recovery and enjoyed perfect health until about 20 years ago. Since that time he has had more or less rheumatism, as he terms it, affecting the muscles, especially of the back; 15 years ago he had pain in the left shoulder and the arm was almost helpless. During the last year he has had pain in the right knee which was at first swollen and painful and later painful when walking or when the leg was extended and flexed upon the thigh. He has been upon a diet almost free from meats for the last eight months and the knee has improved somewhat. He spent a considerable time at Hot Springs, Ark., last spring without relief.

Examination showed a well-preserved man. The chest was negative. The liver dulness extended from the sixth rib in the mammary line to below the costal arch, its lower border was palpable, its edge sharp, the consistency increased and tenderness was marked upon firm pressure. The tenderness was felt not only at the point of pressure in the mammary line, but caused also a sharp pain in the epigastrium. This reflection of the pain of a tender liver to the epigastrium when the right lobe was pressed upon below the costal arch was noted in several other cases. The spleen was not palpable. Knee jerks were present. There was distinct crepitus in both knees upon passive flexion and extension, more marked in the right than the left. The right knee was slightly larger than the left and there was slight tenderness over the joint when firm pressure was made, with flexion and extension of the leg. The urine showed sp. gr. 1.022, acid reaction, no albumin, no sugar, no casts, urea 2 per cent.

The diagnosis of chronic interstitial hepatitis with autointoxication with resulting arthritis was made.

Treatment.—The patient was placed upon a diet free from the red meats and allowed no sweets. A flannel bandage was ordered for each knee and the patient told to exercise daily by walking and to also forcibly extend and flex the knees morning and evening while lying on the back. The medication ordered was 10 gr. doses of the muriate of ammonia after meals, with a sufficient amount of phosphate of soda in hot water on rising to move the bowels daily.

January 30, 1901, the patient was re-examined and found much improved. The liver was still palpable, but less tender and apparently less indurated. There was much less crepitation in the knees. The general management and the medication were continued. On May 11 the patient was again examined, when he complained of some dragging, aching pain in the right hypochondrium with considerable gaseous eructation and epigastric weight after eating. The physical findings were about the same as upon the last examination.

July 11 the patient complained only of itching of the skin which was associated with severe sweating, incident to the hot weather. The liver was less large, less tender and less indurated. He was given 20 gr. doses of the bicarbonate of soda after meals.

October 11 the patient expressed himself as feeling perfectly well. The liver could be felt as a mass descending with inspiration, but its edge could not be felt and it seemed normal in consistency and was not tender. There was no crepitation in the knees and no lameness.

December 3 the patient was seen for the last time. The physical findings were negative as at the time of the last examination. He complained of some fermentative dyspepsia, but was otherwise well. The urine at this time gave a sp. gr. of 1.022, acid reaction, no sugar, no albumin, no casts. He was advised to continue the diet ordered when first seen, to take a good deal of outdoor exercise and to drink water freely as a diluent on rising and three or four hours after each meal.

REMARKS ON THE CASE.

The case is quoted in full as a not unusual one of a group I shall report, in the history he presented, in the physical findings and in the very favorable results noted.

I wish to say at this point that I do not quote this case as one showing a beginning chronic interstitial hepatitis which was cured by the management noted. It would be very intemperate to say that this case and the others which I shall report were all cases of hepatitis, and that in this and in some others a cure occurred. It is reasonable to suppose that the proliferation of connective tissue which occurs in hepatitis does not resolve and that the improvement in the physical condition of the organ noted was not due to the removal of the inflammatory products, but possibly the relief only of the hyperemia incident to the condition.

I do not make this report with the view of adding anything really new to the treatment of hepatitis, but to mention the many symptoms found in patients with a palpable, tender, often enlarged liver and the co-incident disappearance of many of the symptoms with an apparent restoration of the liver to its normal size, consistency and sensation to touch.

PALPATION OF THE NORMAL LIVER.

It may be well to note at this point that in health the liver is not easily palpated. A liver of normal consistency and size, with not abnormally thick abdominal walls, may be felt as a mass descending against the palpating hand below the costal arch in the anterior axillary line. One can not feel its edge and would not know by the feel that it was a liver without the knowledge that the liver usually occupies that situation. With an abnormally thick abdominal wall, even this descending mass can not be felt upon the deepest inspiration.

THE ABDOMINAL LIVER USUALLY PALPABLE.

If one can make out the edge of the liver or can palpate the mass which can be recognized by its contour as the liver, it is not a normal one but is increased in its density and is usually large, although it may be smaller than normal. A palpable liver edge can usually be recognized by the notch in the anterior border which marks the point of separation between the right and left lobes.

A symmetrically enlarged and sharp-edged palpable liver is not necessarily a cirrhotic one; that is due to an increase in the connective tissue element. Passive congestion from a weak right heart, bile stasis from obstruction of the common or hepatic ducts, fatty or amyloid infiltration, may present the same contour and consistence of the liver. The smoothness of the surface of the liver in the early stage of cirrhosis may also resemble the enlargement of the liver due to the conditions named.

Again, one can not state that a cirrhotic liver is in the first stage because it is palpable, indurated, sharp-edged and even tender, for we know that collateral circulation may occur in many of the cases of cirrhosis of the liver, and the venous obstruction and consequent abdominal dropsy, which is so characteristic of the late stage of the disease, may be postponed indefinitely or not appear at all.

Collateral circulation may occur through an enlargement of the deeper veins too, without an enlargement of the branches of the epigastric and of the internal mammary veins which are so often noted enlarged in cirrhosis of the liver with dropsy. The deeper veins which take part in the establishment of collateral circulation are the veins of the suspensory ligament, the diaphragm, the azygos, the esophageal and the gastro-epiploic. If the collateral circulation so established is sufficient, dropsy will not occur and even the superficial veins of the abdomen may remain slightly if at all enlarged. In these cases, therefore, the symptoms will be

chiefly due to the intoxication incident to the cirrhosis of the liver, while the venous obstruction which usually gives rise to dropsy of the peritoneum and to enlargement of the superficial abdominal veins, will remain absent. It is true that hemorrhage from the stomach due to a rupture of the enlarged veins of the stomach wall or of the esophagus may occur as a symptom of the venous obstruction and this, too, in a relatively early period of the disease.

STATISTICAL SUMMARY OF THE CASES.

In presenting these cases I have excluded all cases of palpable liver associated with diabetes mellitus, of heart incompetency with chronic venous stasis, of Bright's disease with associated cardiac weakness and venous stasis, of gallstones or other disease obstructing the bile ducts with consequent bile stasis and of all cases of cirrhosis with evidences of portal vein obstruction.

The cases were therefore selected as probable ones of the primary stage of cirrhosis because: first, the liver was palpable, enlarged, usually tender to the touch and had a sharp indurated edge; second, the absence of evidence of other causes of enlargement and induration of the liver; and third, the absence of evidences of portal obstruction. Two cases while under observation developed ascites and were therefore recognized in the early stage.

During the last three years 54 patients have presented themselves with the conditions of liver named above. Of this group all were males. The ages ranged from 30 to 60 years: 11 were from 30 to 40 years, 25 from 40 to 50, 18 from 50 to 60. The ages of the groups correspond to the ages in which atrophic cirrhosis usually occurs.

Three were saloon-keepers and one a brewery agent. The remainder had varied occupations which could have no relation to the disease. One only confessed that he had suffered from syphilis and in none was evidence of syphilis found. Three had suffered from gonorrhea. Twenty-five, or almost one-half the number, confessed to the use of alcoholic beverages, usually whisky in excessive amount; that is, from 6 to 20 drinks a day. Eighteen, or 33 per cent., admitted using alcoholic beverages in small amounts; that is, from 1 to 3 drinks daily—or taking it at irregular intervals in small amounts.

Eleven, or about 20 per cent., denied the use of alcohol at all, and in the case of some of them I know the statement to be true. This is a large proportion to suffer from atrophic cirrhosis not due to alcohol. In these I was unable to trace any other cause for the cirrhosis, as for example, lead poisoning, malaria, previous acute infectious disease, etc.

The majority of the cases sought consultation for some form of disturbance of the digestive tract; 15 had morning nausea and vomiting. This is a form of disturbance common to cirrhosis in all cases and is doubtless due to catarrhal gastritis. The following case illustrates this condition:

ILLUSTRATING CATARRHAL GASTRITIS.

CASE 2.—J. M., aged 32, single, no occupation. Presented himself Nov. 20, 1900. Family history good.

Personal History and Symptoms.—He had had the acute diseases of childhood, but had always been strong and healthy and recovered quickly from simple acute infections. Had taken exercise. Several years ago he was a hard drinker, using from 3 to 50 drinks a day. He smoked moderately. He had suffered from gonorrhea but never had syphilis. He had acute articular rheumatism in 1896. He sought the consultation for stomach trouble. This began while he was drinking and manifested itself by pain and a sense of heaviness and fulness in the epigastrium after meals. Occasionally there was morning nausea with gagging and coughing up of slimy mucus. There was much flatulence and the bowels were inclined to be loose. The appetite was usually good. He had less strength, endurance and energy than formerly. He complained of pain in the back, aggravated by stooping, and also a sense of heaviness in the region of the liver. His weight was 10 pounds less than two years before.

Examination showed some tenderness in the epigastrium, the edge of the liver palpable below the costal arch, moderately hard and tender. The upper line of dulness began at the sixth rib in the mammary line. The heart and lungs were negative. The spleen was not palpable. The urine: sp. gr. 1.009, pale straw color, acid reaction, no albumin, no sugar, no casts.

Treatment.—He was placed upon a diet free from sweets, greases and rich mixtures, and was given hot water a half hour before each meal. Muriate of ammonia in 10 gr. doses was used after meals and phosphate of soda in hot water when necessary as a laxative in the morning. The patient returned on January 14, and said that he was very much improved.

Recurrence.—He remained so until recently, when he again drank alcohol to excess. Since that time he has had a return of the old symptoms. The physical condition was practically as upon the first examination, although the liver was somewhat more tender. The same treatment was continued. On May 24, 1901, the patient reappeared and stated that he was in perfect health. The liver edge was still palpable but not tender, but could only be felt at the end of a deep inspiration.

REMARKS ON THE CASE.

This case was an undoubted one of alcoholic cirrhosis in the early stage and there can be no question that many of the symptoms of which he complained were toxic in character. The relief was doubtless due to better hygiene and also to the more temperate use of alcoholic beverages.

Gastritis is commonly found also in alcoholic abuse with or without evident cirrhosis of the liver. Congestion of the blood vessels of the stomach from portal stasis from any cause will also cause morning nausea and vomiting.

Twenty-three others of the group suffered from fermentative dyspepsia manifested by epigastric weight, pain and tenderness with eructation of gas, flatulence, etc. The following is a case in point:

FERMENTATIVE DYSPEPSIA AS A SYMPTOM.

CASE 3.—A. T., aged 32, married, sewer contractor. Presented himself Nov. 28, 1901.

History.—His family history was negative. His health had always been good until the present illness. He had not used tobacco nor alcohol and denied venereal disease. He complained of fulness and weight with belching of gas one to one and a half hours after meals. With this was a sense of weakness and some pain in the epigastrium. Occasional lumbar muscular soreness and headache which lasted for several days at a time. Appetite was poor and the bowels constipated. Had lost 10 pounds in weight during the past year.

Examination showed a fairly well-nourished man. Negative findings in the head, neck and lungs. The heart dulness extended from 1½ cm. to the right of the sternum to 2½ cm. to the left of the left nipple; the upper border to the third rib. The apex beat in the fifth interspace 2 cm. outside of the left nipple. The pulmonic second sound accentuated. The liver extended from the sixth interspace in the mammary line to one finger's breadth below the costal arch; its edge was easily palpable and tender and the consistency of the liver was increased. The spleen was not palpable. A single specimen of urine was amber-colored, acid reaction, sp. gr. 1.025, no albumin, no sugar, no casts.

A diagnosis of hepatitis with resulting toxemia was made and patient was placed upon a simple diet without sweets or greases and with plenty of hot water between meals. He was given dram doses of phosphate of soda in hot water on rising in the morning, with the mistura rhei et sodæ, 2 dr. after meals.

December 19 the patient again presented himself and expressed a sense of much improvement in health. The digestive disturbance was practically gone; the bowels were still constipated but moved with the phosphate of soda. The liver was found still somewhat enlarged, its edge sharp and tender. The patient has not been seen since that time.

GASTROINTESTINAL DISTURBANCES.

As this patient had a mitral insufficiency, the question would naturally arise, was the liver condition due to passive venous stasis? This was probably not true, because there was no sign of broken compensation. The lungs were clear; the spleen was not palpable and the urine was normal.

Thus 38, or about 65 per cent., suffered from disturbance of the digestive tract, chiefly of the stomach; 26 were constipated, requiring the use of medicine to move the bowels; 4 suffered from diarrhea; 3 had alternation diarrhea and constipation; 21 had regular daily bowel movements; only 3 of the group suffered from hemorrhoids.

Hemorrhoids in cirrhosis of the liver is not an uncommon result of obstruction of the portal circulation. It is also claimed by some writers that an associated rectal tenesmus is a not uncommon symptom of the beginning of obstruction of the portal circulation. I was surprised to find that so few of this group suffered from an enlargement of the hemorrhoidal veins.

THE COMPLICATION OF MUSCULAR PAIN.

Next to the disturbance of the digestive tract, the most common complaint was of muscular rheumatism, so-called: 12 suffered from lumbago, for which they sought the consultation; 19 from muscular soreness elsewhere in the body, usually, however, combined with lumbago; 2 from sciatica and 2 from musculo-spiral neuritis; 5 had severe headache, usually associated with symptoms of stomach disturbance; 2, arthritis of both knees which had been diagnosed and treated as rheumatism; 8 presented classic symptoms of neurasthenia; that is, lethargy, lessened strength and endurance, nervousness, sleepiness during the day and insomnia at night. The following case illustrates the neurasthenic element:

NEURASTHENIA.

CASE 4.—B. C., aged 45, single, lumber dealer, residence in Mississippi. Appeared Jan. 16, 1901.

History.—Mother died of cancer of the breast; father of pernicious anemia at 68 years. The patient smoked to excess both cigars and pipe. He had taken from 1 to 6 drinks of whisky a day for several years. Denied venereal disease. Recalled no acute disease during his life. For 6 years had been working 13 to 14 hours a day, taking practically no vacation and no recreation. About one and a half years ago he began to be irritable and nervous and these symptoms became worse with time. For six months he had had pressure at the base of the brain with a sense of heat, numbness and tingling of the skin in places. He had less strength and endurance than formerly and suffered from shortness of breath and palpitation of the heart upon exertion. He was much annoyed by a sense of pressure over the sternum, was often sleepy during the day and suffered from insomnia at night. He was more emotional than formerly. His appetite was usually good, but he suffered from morning nausea and regurgitation of fluids and gas, especially after eating. The bowels were sluggish. He had paid no attention to the selection of foods in his diet and had eaten all sorts of greases and indigestible food. His weight was 136 pounds—average being 155.

Examination.—Poorly developed, thin of flesh. Pupils reacted slowly to light and accommodation. Chest negative. The liver edge extended from the sixth rib in the mammary line to one inch below costal arch where it was easily palpable. The edge was sharp and tender and liver density much increased. The blood showed no plasmodia of malaria. The spleen not palpable. The urine: sp. gr. 1.013, pale, alkaline, no albumin, no sugar. Earthy phosphates were deposited.

Treatment.—He was advised to remain north and rest from his business, to take a simple diet, with cold baths in the morning, to stop entirely the use of alcoholic beverages and to diminish the amount of tobacco. A saline was given in hot water on rising in the morning and the mistura rhei et sodæ 2 dr. before meals.

January 31 the patient stated he had had two chills in one afternoon since his last visit; but that he had been very nervous at the time and the chill was not followed by any perceptible increase in temperature and no sweat. He slept better, the appetite was improved and the weight increased 2½ pounds. The physical examination presented the same conditions as upon the first examination.

February 14 the patient was still more improved; there was no nausea and the digestion was practically normal. The bowels were still sluggish and the stools not formed.

March 4 the patient presented himself for an acute coryza, but stated that his general condition was very much improved as compared with his condition when he first began treatment. His weight had increased 5 pounds. The liver was still palpable, but much less tender. Treatment was continued.

REMARKS ON THE CASE.

This patient's condition was doubtless due to his overwork and especially to his habits of life and the alcoholic misuse. There was doubtless an alcoholic gastritis and there was certainly a hepatitis. The improvement was very marked and steady from the beginning of the improved hygiene. The symptoms were doubtless due to the toxemia incident to the liver and stomach condition, but probably more to the defective liver than to any other cause.

OTHER COMPLICATIONS.

Five suffered from chronic pharyngitis, which is not uncommon in alcoholism, and 3 had chronic bronchitis; 13 complained of dragging sensations and soreness in the right hypochondrium, which was aggravated by long standing and increased by palpation of the liver and was usually relieved by lying down. Tenderness of the liver was found on palpation in the 13 named above and also in some of the remaining group who did not suffer from the dragging sensation and tenderness in the right hypochondrium.

ASSOCIATED KIDNEY DISEASE.

The urine was normal in 42 cases, that is, it contained no abnormal elements. The specific gravity was not high, as a rule, contrary to the condition usually found when the portal circulation is obstructed. The highest specific gravity was 1.027. In only 2 cases was the specific gravity below 1.010. In all the cases examined the total solids and total urea excreted were within normal limit. A trace only of albumin was found in 12 cases and this was usually associated with the presence of hyalin and in 3 cases, of granular casts.

Chronic interstitial nephritis is not an uncommon association with cirrhosis of the liver of alcoholic origin and evidences of a mild degree of nephritis in 12 of the cases is therefore not surprising.

Glycosuria ranging from a trace to .8 per cent. was found in 4 cases, but there was no polyuria, no hunger or thirst and no wasting. The following is one of the four cases:

A CASE WITH GLYCOSURIA.

CASE 5.—J. J. E., aged 58, married, railroad master mechanic. Was seen first Nov. 17, 1900. A brother died at 48 of diabetes. Family history otherwise negative.

History and Symptoms.—He has used tobacco very moderately, but none for several years; he used a little alcohol in

the form of beer and wine. He denies venereal disease, had typhoid fever at 22 and pneumonia at 53; has always worked hard and has usually been in good health. Eighteen months ago he noticed that he became more easily tired than usual and had gaseous fermentation with slight constipation. He voided the urine naturally and in not increased amount. His physician found sugar in the urine, but did not state the percentage. He spent the summer of 1899 at Carlsbad and returned very much improved in general health. He now complains of lessened endurance and fatigue which comes with but little physical exertion and his work makes him nervous and fretful. He has a moderate appetite with some gaseous indigestion and no especial thirst. He uses a mixed diet with less starch than he used before the discovery of sugar in the urine, and uses claret or beer once a day with his meals. He uses both tea and coffee. His work requires him to be much out of doors and he is filling his position as a master-mechanic for a railroad, but says that he is not as able to grasp the details of his work as formerly. His present weight is 174 pounds, while 18 months ago it was 190 pounds, his usual weight.

Examination shows a well-built, fairly-nourished man. Tongue furred and slightly brownish in color. Pulse 70, regular, tension somewhat increased. Slight sclerosis of the palpable arteries. The heart dulness is one-half inch within the nipple line at the left, the base at the third rib and the right border at the right sternal edge. There is a faint apex systolic murmur made more manifest by a little exercise, which is not transmitted into the axilla. The aortic second sound is somewhat accentuated. The lungs are negative. The liver dulness begins at the sixth rib in the mammary line, the edge is palpable, sharp, firm and tender two inches below the costal margin. The spleen not palpable. The abdomen is otherwise negative. The urine, 1000 c.c. in 16 hours, color yellowish, reaction acid, sp. gr. 1.027, a trace of albumin and .8 per cent. of sugar; 2.4 per cent of urea, or 24 grms. in 16 hours. Solids for 16 hours 63 grms., of which 8 grms. are sugar.

Treatment.—Patient was placed upon a better hygiene in reference to food, the starches and dark meats diminished and the alcoholic beverages taken away and he was given strychnia 1/50 gr. before meals with 10 drops of a 1 per cent. solution of bromid of arsenic after meals.

December 28 the patient presented himself much improved. The amount of urine in 24 hours was 1800 c.c., reaction acid, sp. gr. 1.022, very slight trace of albumin, 0.8 per cent. of sugar, 1 per cent. of urea, no casts. His weight at this time was 173 pounds, his appetite good, his bowels regular and he made less complaint of neurasthenic symptoms. The liver edge could still be distinctly felt but was not as tender as when first examined.

May 4, 1901, there was 1200 c.c. of urine, sp. gr. 1.027, slight trace of albumin, 0.2 per cent. of sugar, 2 per cent. of urea, no casts. He had lost 4 pounds in weight. Otherwise there was nothing new. Treatment, both hygienic and medicinal, continued.

July 12 the amount of urine was 1500 c.c., color normal, reaction acid, sp. gr. 1.023, a very slight trace of albumin, a trace only of sugar, urea 2.4 per cent., and the sediment contained a few uric acid crystals but no casts. His weight at this time was 170 pounds, with a general improved subjective condition. There was a complaint, however, of pain and tenderness in the region of the right musculo-spiral nerve and slight lumbago. The liver edge could still be felt and slight tenderness remained. He was given 10 gr. doses of muriate of ammonia with the strychnia as before, while the arsenic was discontinued.

September 14 the amount of urine was 1400 c.c., reaction acid, sp. gr. 1.021, no albumin, sugar very faint trace, urea 1.6 per cent., a few hyalin casts and a few uric acid crystals. The liver area was still slightly increased and the induration and very slight tenderness still remained. The musculo-spiral neuritis was practically well. He complained only of slight gaseous fermentation in the stomach.

October 19 the urine was 1700 c.c., acid, sp. gr. 1.024, slight trace of albumin, 0.6 per cent. sugar, urea 1.6 per cent., a few granular casts, a few crystals of oxalate of lime and a few sugar spores. The patient felt well, appetite and digestion good, bowels regular and he presented himself at this time because he desired to have a re-examination. The liver area was still increased in size with some induration, but no tenderness. He had not been so careful with his diet and hence the slight increase in the amount of sugar in the urine. He was again placed upon the bromid of arsenic solution, 10-drop doses after meals, while the general management was continued.

ORIGIN OF THE GLYCOSURIA.

This patient would possibly be called a chronic diabetic, but at no time in his history had he a polyuria and the condition of the liver was such that the anatomic diagnosis of cirrhosis was justifiable. Furthermore, he suffered from toxemia, due, doubtless, to the liver condition. This toxemia manifested itself in a neurasthenic state, in myalgia and in a neuritis. I also believe that the glycosuria was due to the liver condition.

It is a well-known fact that sugar may appear in the urine in cirrhosis of the liver and cirrhosis is given as one of the causes of diabetes. It is also true that an induration of the liver with proliferation of connective tissue and degeneration of its cells occurs in diabetes.

Bile, a trace only, was found in 3 cases and was not constant in the 3 as it was not found after the first examination.

Microscopic blood was found in 2 cases and in 1 of these pus was present. The symptoms in both of these patients pointed to urinary calculus.

COMPLICATIONS OF THE BLOOD SYSTEM.

The spleen was palpably enlarged in 4 cases. It is known that the spleen is usually palpable in cirrhosis of the liver, due frequently to the venous stasis. It is also true that the spleen may be enlarged from the toxemia due to the cirrhosis or from the infection to which the cirrhosis is due.

Myocarditis occurred in 4, associated with arteriosclerosis of the palpable arteries. There was a mitral systolic murmur in 3; an aortic systolic murmur in 2 and a systolic murmur in the pulmonary area in 2. Inguinal hernia occurred in 3 and there was a palpable right kidney in 4 of the patients.

The existence of arteriosclerosis and cardiac disease in a few of the group had no causative relation to the liver condition I think, because the heart was competent in all of the patients examined.

The presence of calculi in the urinary tract was probably accidental, although it would be consistent to believe that the liver cirrhosis would result in mal-assimilation, possibly leucocytosis with an increase of uric acid and consequently a deposition in the previously bacteriologically infected kidney.

MECHANISM OF THE SYMPTOMS.

Cirrhosis of the liver gives rise to symptoms which depend upon two conditions: first, those due to portal obstruction, and second, those due to intoxication in consequence, apparently, of the failure of the diseased liver to modify the products of digestion and the other material absorbed from the digestive tract. The toxemia is further intensified doubtless by the passage of the toxic material from the digestive tract directly to the blood through the collateral circulation. Symptoms of cirrhosis of the liver are therefore usually referred to as obstructive and toxic.

It has appeared to me that the symptoms in the cases presented could be rationally interpreted as due to a toxemia in consequence of the changed anatomy of the liver.

It may be maintained by some that the symptoms

noted in these cases occur in patients who have no recognizable change in the liver. Many attribute similar and like symptoms to toxemia from gastrointestinal disorders, with faulty liver action without recognized anatomic defect, or to uric acid in excess from faults of the table, or to defective excretion of waste material through the bowels, skin and kidneys. I shall not attempt to oppose these propositions.

CAUSES OF RELIEF OF SYMPTOMS.

As stated above, the cases are presented with a statement of the positive, anatomic, clinical findings and with the subjective symptoms for which the patients sought the consultation.

It may be true that the symptoms were not due to the changed anatomy of the liver, although, as stated above, the coincident improvement in the liver condition with the disappearance of subjective and objective phenomena was striking in some cases.

It is also true that the improvement occurred most markedly in those patients who followed the general management advised, in the way of abstinence from alcoholic drink, in a regulation of the diet to a very simple one, in the adoption of physical exercise or other recreation, and in the use of water as a diluent drink. The improvement was also co-incident with and in direct ratio. usually, to the improvement in the elimination of waste through the bowels, skin and kidneys.

Admitting this, it does not alter the proposition that the symptoms were due to, or at least aggravated by, changed liver structure. The admitted auto-intoxication association with the indigestion of gastritis or of neurosis of the stomach, or of the toxemia of constipation, etc., would rationally be intensified by a crippled liver.

The fact noted in several cases of improvement in the liver condition with the adopted better hygiene, is important.

In these cases the commonly-associated digestive disturbance was improved or disappeared. Would it be fair, therefore, to believe that the liver condition was due to the abnormal condition of the digestive tract? If so, was the improved liver condition due to the bettered state of the stomach and bowels? If this is granted, one would rationally believe that a beginning liver cirrhosis was checked.

Unfortunately, we do not know the nature of the toxin which occurs in cirrhosis of the liver, nor do we understand what the poison is which occurs in auto-intoxication from indigestion due to disease of the stomach and bowels or to faulty diet, or to constipation, etc. Consequently, our deductions, be they ever so rational, are not truly scientific and are consequently open to controversy and criticism.

DIET, HABITS AND HYGIENE.

The treatment followed in the cases reported was an attempt in each case to find the hygienic faults. The diet chosen was made free of heavy meats, of rich mixtures, of greases and sweets and of much fluid with the meals. Alcoholic drink was prohibited. Water was advised as a diluent on rising and three or four hours after each meal. Recreation in the true sense of the word was advised for each. This in the majority consisted of outdoor work or play.

MEDICINAL TREATMENT.

The medication followed was indifferent, but the principle followed was to keep the bowels free with the use of a saline in hot water, one-half hour before breakfast. The mistura Rhei et Sodæ (U. S. P.) with or without tincture of nux vomica in doses of 2 to 4 dr. before or after meals. Digestive ferments were not used. When hydrochloric acid was deficient in the stomach contents, it was given after meals.

Muriate of ammonia in 10 gr. doses was used in some cases because in the writer's experience its use in cirrhosis of the liver has been coincident with improvement in the liver condition in many cases. Kussmaul many years ago advised the use of ammonium chlorid in the early stage of cirrhosis and I have used it much since that time.

However, in the light of a considerable experience, it is my belief that an improved hygiene, with the use of a saline purgative when it is necessary, will give results quite as good without as with the use of other drugs.

100 State Street.

HEMOSTASIS OF THE BROAD LIGAMENT.

HENRY P. NEWMAN, A.M., M.D.

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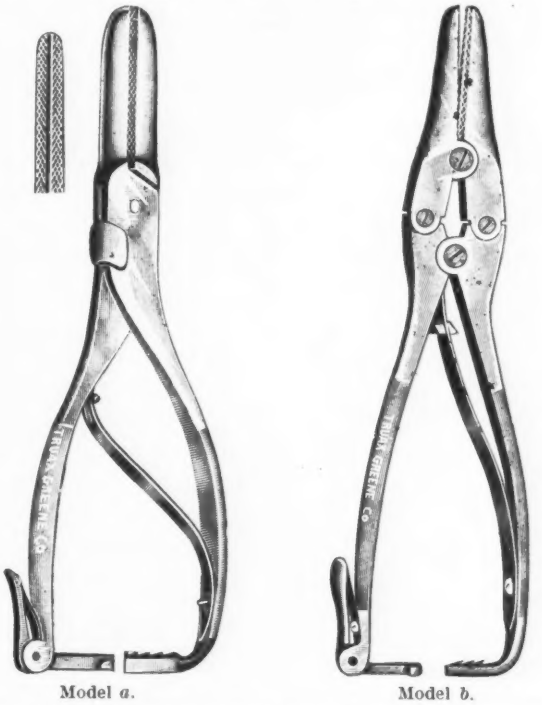
CHICAGO.

The almost universal employment of the absorbable ligature in surgery of the broad ligament is in itself a



Model *a*. Model *b*.

Fig. 1.—The Newman pressure clamp. Model *a*. Designed for both abdominal and vaginal work. Model *b*. The more powerful instrument for use in cases where 1000 lbs. or more pressure is required.

confession of the imperfection of our present methods, a protest against the retention of the foreign body in peritoneal wounds, an admission that the less ligature material we use the better. A glance back over the last few decades gives an impressive showing of efforts to do away with it altogether, and while no instrument or appliance has yet been offered upon which we can rely in all circumstances, the écraseur, thermocautery, torsion, retention forceps, electrothermic forceps and the angiotribe mark the several stages of progression towards the ideal hemostatic. This should insure: 1. Absolute security against hemorrhage, primary or secondary. 2. Protection against septic contamination. 3. The minimum injury to the parts treated. 4. Absence of foreign bodies from the wound.

By the use of the electrothermic forceps and the angiotribe we can approach very nearly these ideal conditions, but there are some objections which render both impracticable for general use. The former can only be used where there is an electric apparatus at hand, and is thus seldom available except in hospital service.

The latter instrument is made after too many models, is often imperfectly constructed, so that it fails in some

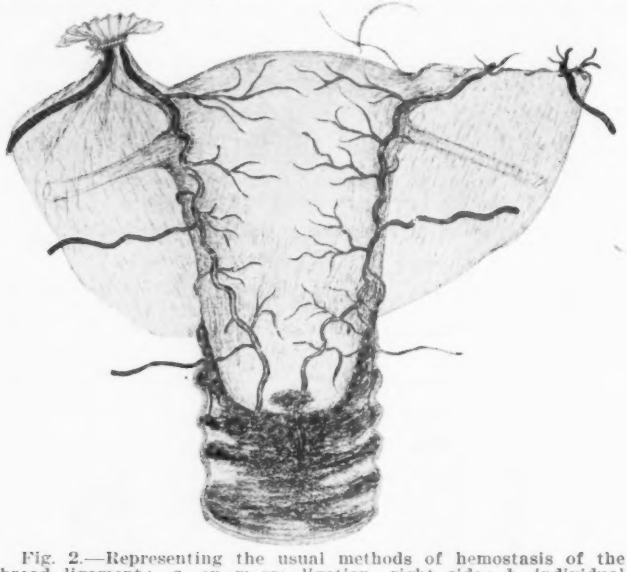


Fig. 2.—Representing the usual methods of hemostasis of the broad ligament: *a*, en masse ligation, right side; *b*, individual ligation, left side, with running catgut suture of gaping stump.

vital particular, or it is carelessly used, so that it has not given thus far uniformly satisfactory results.

My own experience with the angiotribe has been most gratifying. In several scores of cases, embracing all varieties of work, I have never had a secondary hemor-

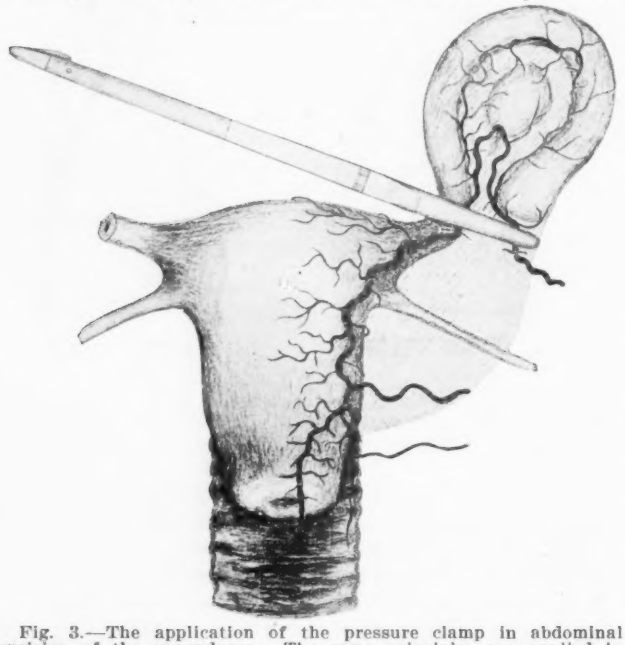


Fig. 3.—The application of the pressure clamp in abdominal excision of the appendages. The same principles are applied in the vaginal operation.

rhage. I have, however, used it with discretion, and in special cases fortified my stumps with an individual catgut ligature, encircling the ovarian or uterine artery in its course along the broad ligament. The advantages of this procedure are apparent when we consider what are the objections to the usual methods of ligation.

In ligation *en masse* there is the danger of loosening and slipping of the ligature from shrinkage of the stump (Fig. 2 a.); the larger vessels may retract and bleed into the cellular tissue, producing hematoma, of which Tait once tabulated eighty cases; tissue necrosis and the formation of granulating surfaces may give rise to troublesome adhesions; the absorption into the circulation of the waste products of necrosis or saprophitic germs puts an added burden upon nature's resources and retards convalescence; the drawing upon neighboring structures may cause displacement of organs and more or less constant distress or pain; again this method necessitates the employment of large-sized catgut with correspondingly large knots. (Fig. 2 a.)

The objections to individual ligation, on the other hand, are greater danger of secondary hemorrhage; oozing from the stump; the necessity of the running catgut suture to approximate raw surfaces; too much ligature and suture material left in the wound. (Fig. 2 b.)

Of the two methods, individual ligation is the better; but few of us feel safe in tying with catgut the terminal end of a large pulsating vessel and then closing the abdominal wound.

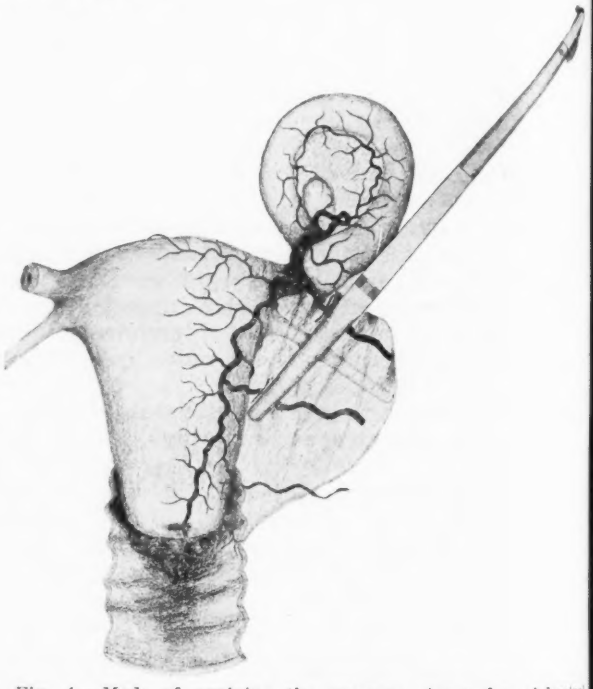


Fig. 4.—Mode of applying the pressure clamp for abdominal hysterectomy. The same principles to be applied in vaginal hysterectomy.

The method which I employ aims to do away with the objections and unite the advantages of the others. The Newman pressure clamp (Fig. 1, models a and b) is applied in the usual manner, if for excision of the appendages or tumors with pedicle, along the roof of the broad ligament (Fig. 3), or directly across the pedicle.

In the former case the bite of the clamp includes the ovarian artery, and by turning the closed instrument half way on the side the artery can readily be seen and encircled by a small catgut ligature just beneath the clamp and on the proximal side of the broad ligament. The main artery is in this way secured, and in the most advantageous way possible, individually and before it emerges from its moorings in the tissues, thus preventing all thought of slipping from the grasp of the ligature. The clamp is removed and the neat, linear stump (Fig. 5) receives no further treatment unless it be septic, as in the case of pus-tubes, when I am accustomed to apply 95 per cent. carbolic acid to the entire cut surface at the site of amputation, or resect the

interstitial portion of the tube, closing the wound in the usual manner with a running catgut.

If by reason of anatomic anomaly or enlargement of the collateral branches a second ligature is necessary, it is applied after or before the removal of the clamp, but always in its course in the substance of the tissue and often in the parchment-like clamped portion.

In hysterectomy both the uterine and ovarian arteries are clamped off and tied in precisely the same manner (Fig. 4).

Used in this way there can be no slipping of the ligature, or contracting and withdrawing of the artery from the stump. The advantages claimed for this method are:

1. Complete and permanent hemostasis, with no possibility of the ligature slipping either off the end of the artery or of the stump.

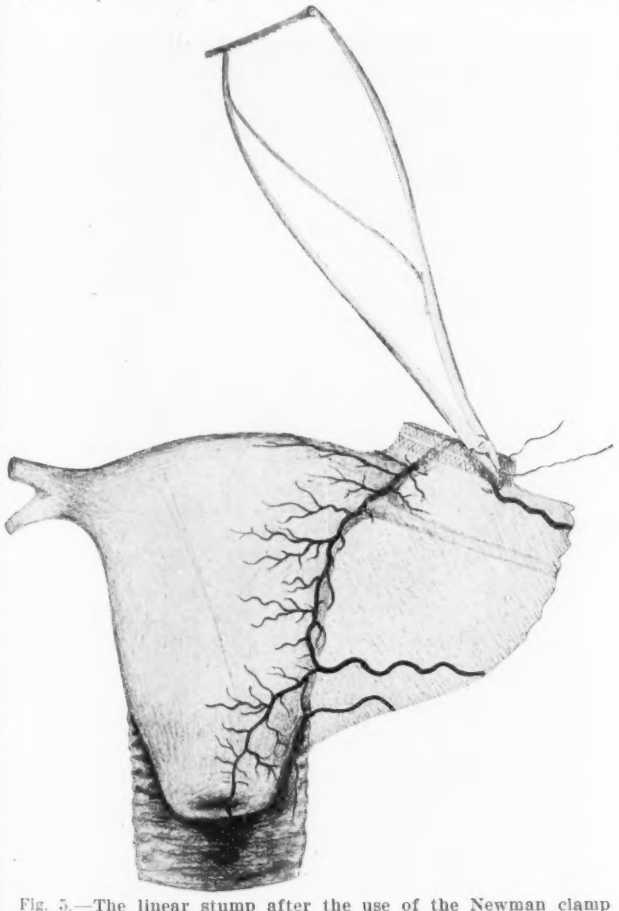


Fig. 5.—The linear stump after the use of the Newman clamp and ligation of the ovarian artery.

2. Inability of the artery to contract and draw away from the grasp of the ligature and form hematoma or hematocele.

3. By the combined use of the angiotribe and ligature multiple thrombi are formed, plugging the vessels most securely.

4. There is no puckering up or massing together of broad ligament tissue to draw upon or displace other organs or structures.

5. No strangulated stump tissue remains to slough, granulate and form adhesions.

6. The amount of foreign matter left in the wound is reduced to a minimum.

7. The rapidity of this method and its bloodlessness materially lessen the danger of postoperative shock.

8. Convalescence is eased materially and hastened to a marked degree.

100 State Street.

Clinical Report.

VALUE OF METHYLENE BLUE IN OPERATING ON FISTULOUS TRACTS.

THEO. G. DAVIS, M.D.

BRIDGETON, N. J.

On June 23, 1901, I was called by Dr. S. to see Miss B., aged 43, she having had during the previous winter an abscess, situated between the right tuberosity of ischium, and anus, opened and twice operated on by a Philadelphia surgeon.

This had refused to heal. On examination, a line of scar tissue was found to extend from the outer side of the anal sphincter almost to the ischial tuberosity; about the center of the scar was a small opening from which oozed pus and the margins of which were undermined and unhealthy. A probe passed upward and outward into the right ischio-rectal fossa, a distance of three and one-fourth inches, but no opening into the rectum could be detected at this examination. The tract was cleaned by hydrogen dioxid and water, equal parts, and afterward with alcohol 50 per cent.; this was continued for about two weeks, tenderness disappeared and the general appearance improved. On using hydrogen dioxid, in full strength with force, a very slight foam discharged from the anus.

Examination by speculum revealed a minute opening about three inches above the anal margin. The patient's general health had improved and we determined on an operation.

Whether by inspiration or unconscious plagiarism, which is so common, I resolved to inject the tract with a solution of methylene blue, thirty grains in an ounce of 50 per cent. alcohol. This was done with considerable force three times during twenty-four hours. The patient having been prepared and an anesthetic administered, the anus was stretched and the small opening in the rectum, stained blue, could be easily seen nearly three inches above the anal margin. A grooved director was passed and the intervening tissue, including the sphincter, divided; separating the edges of the incision, the fistulous tract could be plainly seen stained a deep blue and Y shaped, the prong of the Y, extending into the ischio-rectal fossa, was about one and three-fourths inches; the straight line opening externally was the same length.

The deeply-stained tissue could be easily distinguished, and was removed with a sharp curette and the space carefully cleaned and packed about a moderately soft rubber tube in the rectum, extending beyond the dressings, which were changed as needed.

As so much has been written about the hairpin in surgery, I will state that one spread and bent at an acute angle to keep it from slipping was used inside the rubber tube and prevented obstruction by pressure of packing. The tube allowed passing of flatus and fluids, gave the patient much comfort, and avoided the necessity of changing dressings frequently.

The patient recovered nicely and now has control of stools and flatus. I expected later to make end-to-end suture of the sphincter, but she is satisfied with the result.

The deep staining of the diseased tissue and the ease with which it can be distinguished and completely removed leads me to report this case. I do not think in any other way can we be certain of its complete removal, which accounts for the two previous failures of operation. The injection of methylene blue as described will enable the surgeons to follow any tortuous tract and can be applied to old sinuses of any kind.

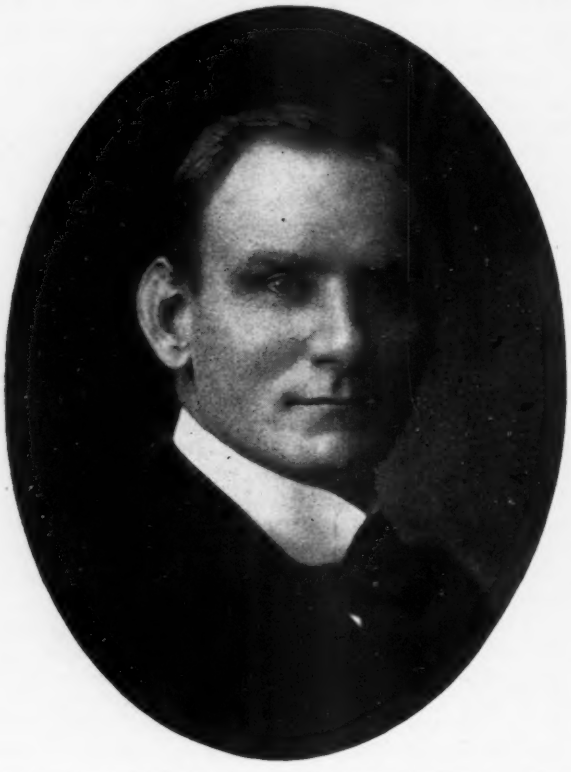
18 N. Pearl Street.

The Lisbon Method of Prohibiting Expectoration in Public Vehicles.—The authorities at Lisbon have issued regulations forbidding spitting on the floor in public vehicles, under penalty of a fine. The point that distinguishes the measure from others of its kind is that the conductor of the vehicle is the responsible party, and the penalty fine is collected from him unless he can produce evidence to prove that he appealed to a policeman and that the latter refused to interfere.

HISTORY OF THE SECTIONS OF THE AMERICAN MEDICAL ASSOCIATION.

In reviewing the history of the Sections of the Association as given in the Transactions and in THE JOURNAL, there is a certain amount of difficulty from the fact that there are for many years no published official minutes and the data in the general minutes are not uniform or complete. In some cases even the names of officers are not given and in others the Sections were apparently dormant, there being no report from them. In the following pages an attempt has been made to bring together the leading landmarks, the dates of organization, the principal changes that have occurred and the names of those that have served as officers of the different Sections.

For the first twelve years of its existence the American Medical Association held only general meetings; the attendance was not so large, nor the number of articles so numerous as to call for division; it was simply conducted on the usual plan for a medical society or convention. The need of more specialization of its work, however, gradually became apparent, and in 1859



Frank A. Jones, Memphis, Tenn., Chairman, Section on Practice of Medicine.

at the Louisville meeting, Dr. J. B. Lindsley of Tennessee offered the following:

Resolved, That a committee of three be appointed by the Chair to inquire into and report upon the propriety of dividing the Association into Sections for the purpose of performing such parts of its scientific labor as may relate to practical branches of medicine and surgery.

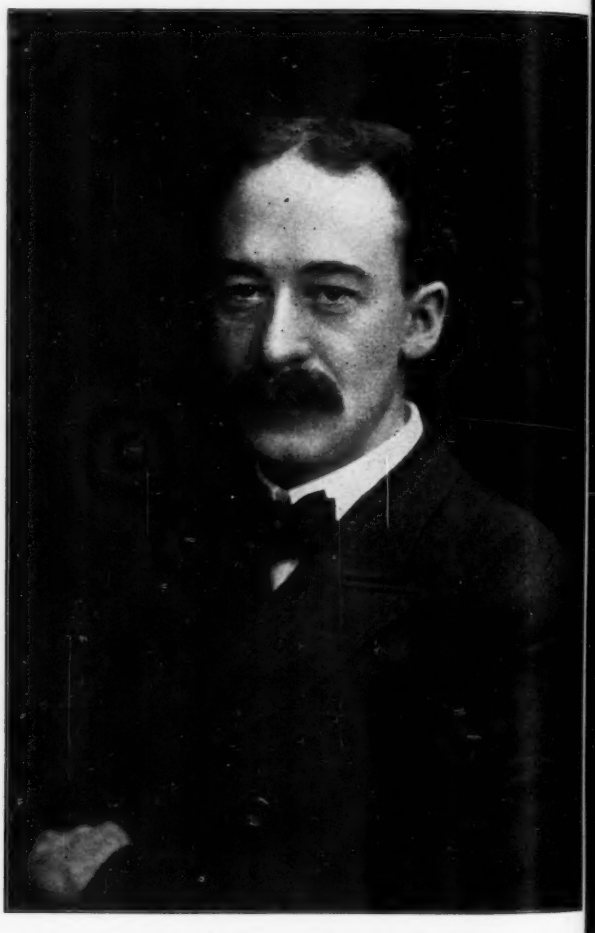
This was adopted, and Drs. Lindsley, Brainerd (Ill.) and G. C. Blackman (Ohio) were appointed as the committee.

The next day Dr. Lindsley reported, recommending a division into the following Sections: 1. Anatomy and Physiology. 2. Chemistry and Materia Medica. 3. Practical Medicine and Obstetrics. 4. Surgery. The report was adopted. Later, on the same day, on motion of Dr. H. F. Campbell, a Section on Meteorology, Medical Topography and Epidemic Diseases and one on Medical Jurisprudence and Hygiene were added.

At the New Haven meeting in 1860 reports were called for on the afternoon of the third day. The Sections on Anatomy and Physiology, Practical Medicine and Obstetrics, Surgery and Meteorology, Medical Topography, etc., reported on papers which were referred to the Committee on Publication. The Section on Chemistry and Materia Medica did not organize.

Up to 1870 the Sections organized at each annual session. In 1869, on motion of Dr. Palmer of Michigan the by-laws were amended so as to make the election of the section chairmen and secretaries by the general meeting on nomination by the Committee on Nominations. They were to be elected at each meeting, and hold office till their successors were chosen at the close of the next year's session. This went in force in 1870 and the officers were thus elected for the ensuing year. In our lists here given the officers are named, from this date on, in the year in which they were chosen.

In 1884 Dr. Foster Pratt offered an amendment to the by-laws empowering Sections to elect their own officers. This was called up the next year at the New Orleans meeting by Dr.



Robert B. Preble, Chicago, Secretary, Section on Practice of Medicine.

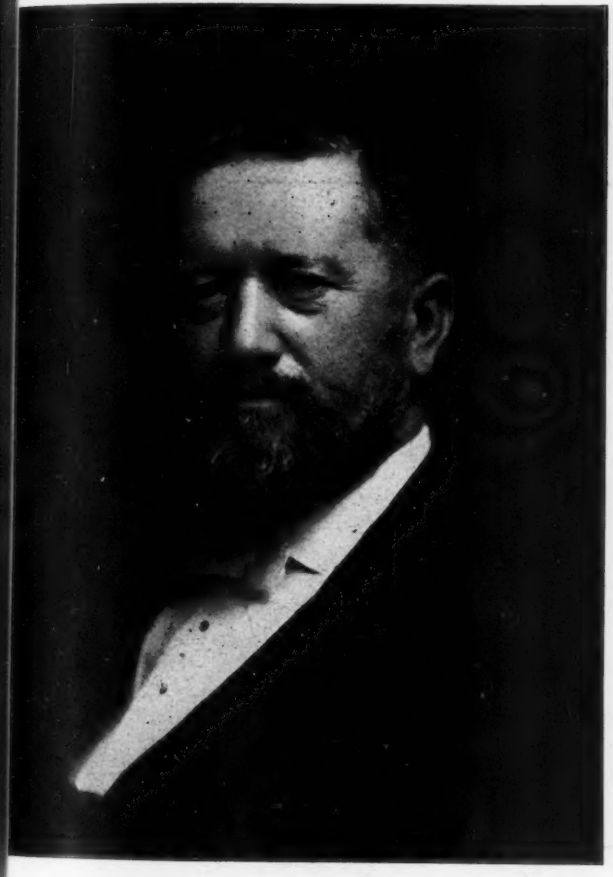
Potter and its adoption moved by Dr. Hibberd of Indiana. Dr. Davis (Ill.) moved an amendment that it be laid over for consideration at the next session which on vote was adopted.

At the next meeting, at St. Louis, the change was made and since then, though attempts have been made to restore the old order, the Sections have elected their own officers.

SECTION OF PRACTICAL MEDICINE AND OBSTETRICS.

The Section of Practical Medicine has had, with certain changes of name and giving off offshoots, a continuous record down to the present time. In the minutes and transactions it is most frequently mentioned as the Section on Practice of Medicine, etc., but we find no record of such an alteration of its designation, and none has been made. One or two attempts have been made to alter it to the Section on Internal Medicine or some other title, but without success, and it still is the Section on Practical Medicine, so far as the records show. The following is its list of chairmen and secretaries:

YEAR.	CHAIRMAN.	SECRETARY.
1860	Amos Nourse (Me.)	A. K. Gardner (N. Y.).
	Sessions discontinued on account of Civil War.	
1864	B. Fordyce Barker (N. Y.)	H. R. Storer (Mass.).
1865	Z Pitcher (Mich.)	Ellsworth Elliot (N. Y.).
1866	L. F. Tefft (N. Y.)	W. B. Bibbins (N. Y.).
1867	M. K. Taylor (Iowa)	E. Hall (N. Y.)
1868	R. R. McIlvaine (Ohio)	C. M. Finch (Ohio).
1869	H. F. Askew (Del.)	J. C. Hupp (W. Va.)
1870	Jos. Kammerer (N. Y.)	J. C. Jackson (Conn.).
1871	H. R. Storer (Mass.)	J. K. Bartlett (Wis.).
1872	D. A. O'Donnell (Md.)	B. F. Dawson (N. Y.).
	Name changed to Section of Practical Medicine, Materia Medica and Physiology.	
1873	N. S. Davis (Ill.)	Geo. E. Frothingham.
1874	Austin Flint, Sr. (N. Y.)	J. K. Bartlett (Wis.)
1875	F. G. Smith (Pa.)	B. A. Vaughan (Miss.).
1876	P. G. Robinson (Mo.)	B. A. Vaughan (Miss.).
1877	A. L. Loomis (N. Y.)	J. H. Etheridge (Ill.)
1878	F. F. Rochester (N. Y.)	W. C. Glasgow (Mo.)
1879	J. S. Lynch (Mo.)	W. C. Glasgow (Mo.).
1880	Wm. Pepper (Pa.)	T. A. Ashby (Md.).
1881	J. A. Octerlony (Ky.)	D. J. Roberts (Tenn.).



J. H. Carstens, Detroit, Mich., Chairman, Section on Obstetrics and Diseases of Women.

1882	J. H. Hollister (Ill.)	J. G. Lee (Pa.).
1883	J. V. Shoemaker (Pa.)	W. C. Will (Conn.).
1884	H. D. Didama (N. Y.)	G. M. Garland (Miss.).
1885	J. F. Whittaker (Ohio)	B. L. Coleman (Ky.).
1886	J. S. Lynch (Md.)	J. B. Marvin (Ky.).
1887	A. B. Palmer (Mich.)	N. S. Davis, Jr. (Ill.).
1888	F. C. Shattuck (Mass.)	G. A. Fackler (Ohio).
1889	J. H. Musser (Pa.)	H. McColl (Mich.).
1890	V. A. Vaughan (Mich.)	Geo. Dock (Tenn.).
	"Materia Medica" dropped from name of section on account of formation of Section of Materia Medica.	
1891	R. T. Edes (Mass.)	J. M. French.
	"Physiology" dropped from name on account of formation of Section of Physiology and Dietetics.	

SECTION ON PRACTICAL MEDICINE.

1892	C. G. Stockton (N. Y.)	G. W. Webster (Ill.).
1893	H. A. Hare (Pa.)	W. H. Washburn (Wis.)
1894	E. W. Kellogg (Wis.)	W. E. Quine (Ill.).
1895	W. E. Quine (Ill.)	Delancey Rochester (N. Y.).
1896	J. H. Musser (Pa.)	J. T. Priestley (Iowa).
1897	S. A. Fisk (Colo.)	A. A. Jones (N. Y.).
1898	F. Billings (Ill.)	C. A. Edson (Colo.).
1899	Geo. Dock (Mich.)	T. P. Futcher (Md.)
1900	J. M. Anders (Pa.)	W. Britt Burns (Ark.).
1901	Frank A. Jones (Tenn.)	R. B. Preble (Ill.)

SECTION ON METEOROLOGY, MEDICAL TOPOGRAPHY AND EPIDEMIC DISEASES.

This Section was organized June 6, 1860, at the New Haven meeting.

YEAR.	CHAIRMAN.	SECRETARY.
1860	Charles A. Lee (N. Y.)	E. Warner (Md.).
1864	S. W. Butler (Pa.)	A. N. Bell (N. Y.).
1865	James Walsh (Conn.)	O. C. Garrett (Mass.).
1866	B. H. Catlin (Conn.)	N. S. Davis (Ill.).
1867	B. H. Catlin (Conn.)	N. S. Davis (Ill.).
1868	B. H. Catlin (Conn.)	N. S. Davis (Ill.).
1869	Geo. Burr (N. Y.)	N. S. Davis (Ill.).
1870	Called in this volume (XXI) the Section on Meteorology and Epidemics, or Climatology and Epidemics (both used), showing, however, simply a carelessness in the record. No chairman is mentioned in report of section. Only two papers referred to it. N. S. Davis (Ill.) was secretary.	
1871	N. S. Davis	H. D. Holton (Vt.).
1872	Geo. L. Sutton	E. Harris.
1873	Consolidated with Section on State Medicine and Public Hygiene.	

C. L. Bonifield, Cincinnati, Secretary, Section on Obstetrics and Diseases of Women.

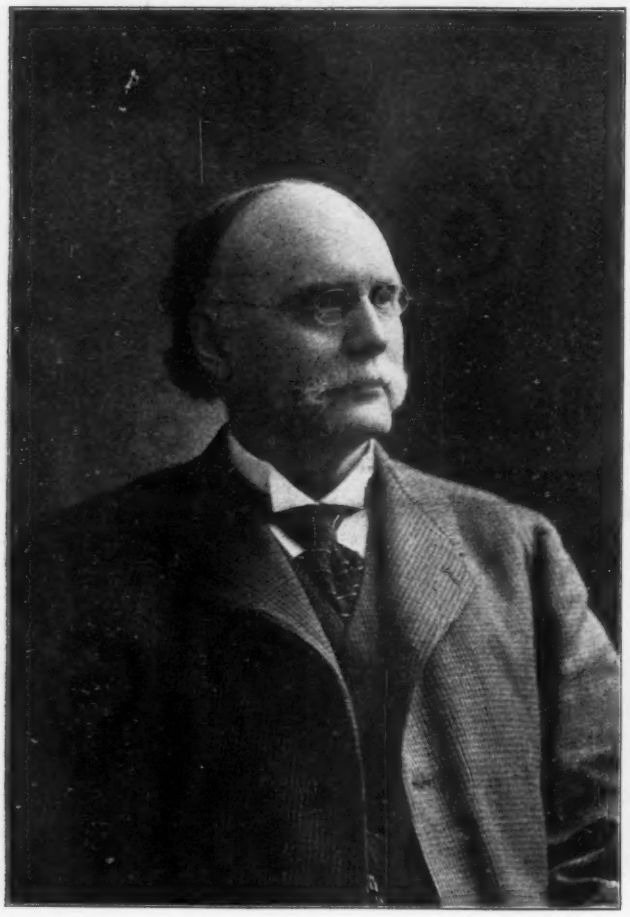
A "Section on Anatomy and Physiology" was one of those proposed in the 12th meeting, when the division into Sections was first suggested, but we find in the minutes no note as to its organization. Nevertheless, in the sixteenth and eighteenth volumes of the Transactions there are minutes of papers being referred to this Section. In the sixteenth volume, p. 48, the permanent secretary reported that no meeting had been held and that it was abolished on motion of Dr. Hibbard of Indiana. The fact is this Section was never organized after the first meeting in New Haven. The papers referred to it were returned to the secretary of the Association and by him to the Transactions at the Boston meeting (1865). The Section was abolished, and anatomy added to the Section on Surgery and Physiology to that on Hygiene, on motion of Dr. Hibbard.

SECTION ON SURGERY AND ANATOMY.

The Section on Surgery organized first on June 7, 1860. It has been an active Section at every meeting of the Association since that time, with the exception only of 1863, in which

year the section organizations seem to have been suspended. In 1865 anatomy was added to this Section, making it the "Section on Surgery and Anatomy." The following have been its officers.

YEAR.	CHAIRMAN.	SECRETARY.
1860	Dixi Crosby	Jas. Bryan (Pa.).
1864	A. Van Dyke (N. Y.)	J. Hamburger (N. Y.).
1865	H. J. Bigelow (Mass.)	A. B. Hall (Mass.).
1866	A. C. Post (N. Y.)	J. H. Hobart Page (N. Y.).
1867	S. D. Gross (Pa.)	J. L. Little (N. Y.)
1868	J. L. Atlee (Pa.)	J. F. Shrady (N. Y.).
1869	Paul F. Eve (Tenn.)	J. F. Huestis (Ala.).
1870	S. D. Gross (Pa.)	J. T. Darby (S. C.).
1871	J. W. Russell (Ohio)	H. Carpenter (Ore.).
1872	E. Warren (Md.)	W. F. Peck (Iowa).
1873	S. D. Gross (Pa.)	A. Garcelon (Me.)
1874	E. M. Moore (N. Y.)	T. S. Latimer (Md.).
1875	A. Garcelon (Me.)	E. T. Easley (Tex.)
1876	D. Hayes Agnew (Pa.)	Moses Gunn (Ill.)
1877	H. H. Smith (Pa.)	E. T. Easley (Ark.).
1878	Moses Gunn (Ill.)	J. R. Weist (Ind.).
1879	W. T. Briggs (Tenn.)	C. Powell Adams (Minn.).
1880	Hunter McGuire (Va.)	Duncan Eve (Tenn.).



DeForest Willard, Philadelphia, Chairman, Section on Surgery and Anatomy.

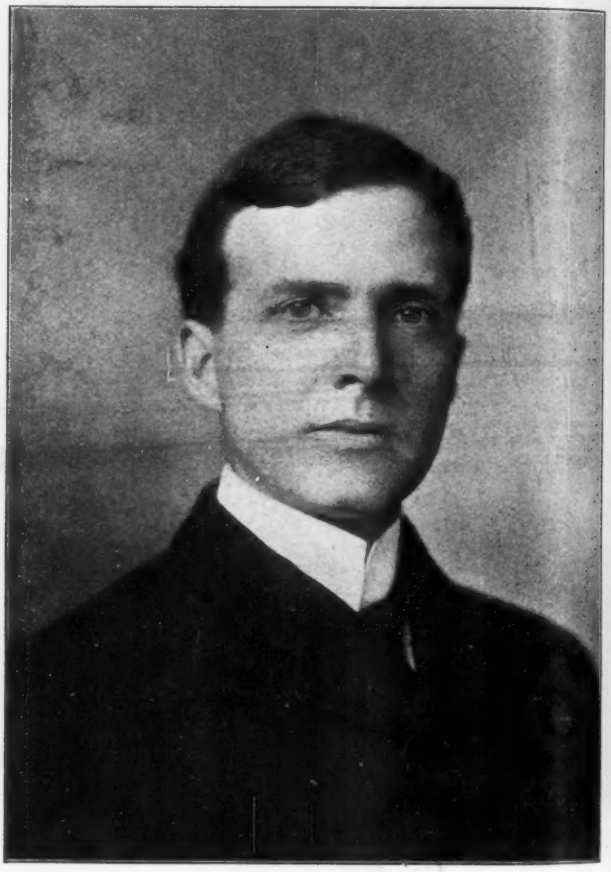
1881	J. C. Hughes (Iowa)	W. A. Byrd (Ill.).
1882	W. F. Peck (Iowa)	Paul F. Eve (Tenn.)
1883	C. T. Parker (Ill.)	A. O. Walker (Mich.).
1884	Duncan Eve (Tenn.)	C. B. King (Pa.)
1885	N. Senn (Ill.)	H. H. Mudd (Mo.)
1886	H. H. Mudd (Mo.)	Jas. B. Roberts (Pa.).
1887	Donald McLean (Mich.)	B. A. Watson (N. J.).
1888	N. P. Dandridge (Ohio)	W. O. Roberts (Ky.)
1889	B. A. Watson (N. J.)	J. B. Deaver (Pa.).
1890	Theo. McGraw (Mich.)	W. E. B. Davis (Ala.).
1891	J. McF. Gaston (Ga.)	W. F. Mann (Mich.).
1892	J. F. Jelks (Ark.)	L. H. Montgomery (Ill.).
1893	J. B. Roberts (Pa.)	F. W. McRae (Ga.).
1894	Jas Ransohoff (Ohio)	R. H. Sayre (N. Y.).
1895	C. A. Wheaton (Minn.)	W. L. Estes (Pa.).
1896	Reg. Sayre (N. Y.)	Payard Holmes (Ill.).
1897	W. L. Rodman (Ky.)	Clayton Parkhill (Colo.).
1898	W. J. Mayo (Minn.)	W. L. Harris (Ill.)
1899	H. O. Walker (Mich.)	R. Guiteras (N. Y.).
1900	A. J. Ochsner (Ill.)	M. B. Tinker (Pa.).
1901	DeF. Willard (Pa.)	J. B. Bullitt (Ky.).

SECTION ON CHEMISTRY AND MATERIA MEDICA.

This Section organized at the New York meeting (15th) in 1864, with Dr. J. H. Griscom of New York as chairman and Dr. Corrie of New York, secretary. The following year the minutes make no mention of this Section, but in 1866 we find Dr. W. B. Atkinson of Philadelphia its chairman and Dr. Augustus Mason of Massachusetts acting as its secretary. Beyond the mention of its place of meeting, this Section is not mentioned in the Transactions for 1867. On account of non-attendance of members there was no meeting. In 1868 it was again active, with Dr. J. E. Morgan of Washington City as chairman and Dr. L. J. Deal of Pennsylvania as secretary. There follow two more barren years, 1869 and 1870, as far as any mention of this Section is concerned, but from that time a meeting was held each year.

YEAR.	CHAIRMAN.	SECRETARY.
1871	D. W. Yandell (Ky.)	
1872	J. S. Crane (N. J.)	H. S. Hurd (Ill.).
1873	R. E. Rogers (Pa.)	Eph. Cutter (N. Y.).

Under the rearrangement of the Sections made in 1873, the Section on Chemistry, Materia Medica and Therapeutics ended its history, and was thereafter continued, if it can be so said,



James B. Bullitt, Louisville, Ky., Secretary, Section on Surgery and Anatomy.

in the Section on Medical Jurisprudence, Chemistry and Psychology.

SECTION ON MEDICAL JURISPRUDENCE AND HYGIENE.

This Section was provided for on motion of Dr. H. F. Campbell at the 12th meeting of the Association at Louisville in 1859, but we find no record of its organization until 1865, though the minutes report papers referred to it before that date. The officers for 1865 were Dr. J. F. Hibbard of Indiana, chairman, and Dr. Robert Burns of Pennsylvania, secretary. With the abolition of the Section on Anatomy and Physiology, the Section was made the Section on Medical Jurisprudence, Physiology and Hygiene. Its officers so far as we can ascertain from the minutes for the subsequent years were as follows:

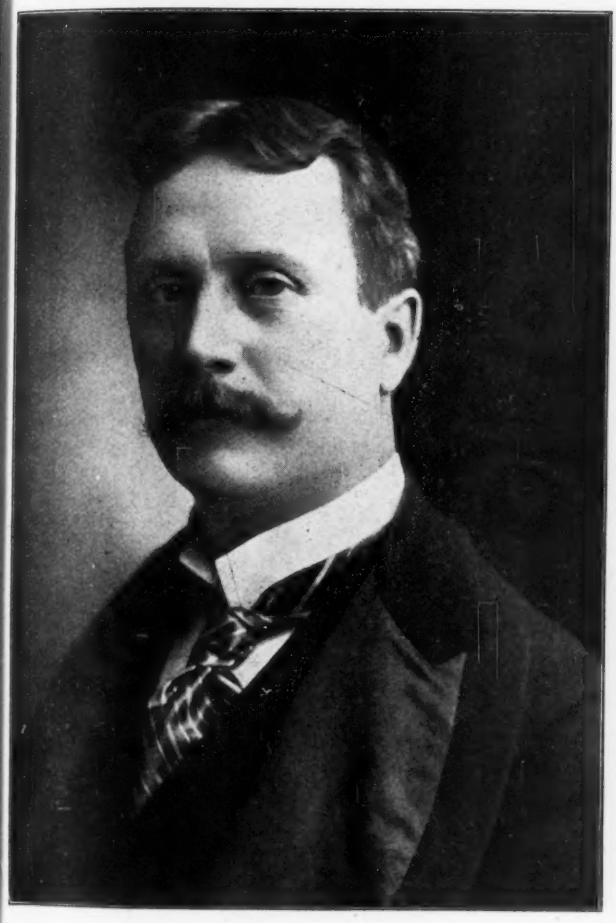
YEAR.	CHAIRMAN.	SECRETARY.
1866	W. Jewell (Pa.)	A. N. Bell (N. Y.).
1867	Record wanting	
1868	Record wanting	

YEAR.	CHAIRMAN.	SECRETARY.
1869	J. F. Hibberd (Ind.)	J. K. Bartlett (Wis.).
1870	F. H. Getchell (Pa.)	Benj. Blackford (Va.).
1871	Record wanting.	
1872	S. C. Busey (D. C.)	S. L. Howard (Md.).

In the reorganization of 1873 it was consolidated with the Sections on Chemistry, Materia Medica, etc., and on Psychology into the Section on Medical Jurisprudence, Chemistry and Psychology.

SECTION ON PSYCHOLOGY.

This Section was provided for at the same time as that on Medical Jurisprudence and Hygiene. It apparently did not have a very vigorous life; the medical superintendents of asylums of the country had their own association and did not co-operate as was the hope when the Section was formed. This is apparent in several entries in the general minutes. The officers of the Section so far as can be ascertained were:



Arthur R. Reynolds, Chicago, Chairman, Section Hygiene and Sanitary Science.

YEAR.	CHAIRMAN.	SECRETARY.
1866	C. A. Walker (Mass.)	
1867	W. A. Lee (N. Y.)	H. R. Storer (Mass.).
1868	D. F. Condie (Pa.)	C. A. Lee (N. Y.).
1869		
1870	J. P. Gray (N. Y.)	A. Hartmann (Md.).
1871		
1872	Isaac Ray (R. I.)	J. Curwen (Pa.).

In 1873 this Section was left out in the rearrangement, or rather, we may perhaps say, was consolidated with the Section on Medical Jurisprudence and Chemistry.

In 1870 it was recognized that the Sections were not doing uniformly their best work, that two or three of them engrossed the attention of members and that the others were comparatively neglected. A special committee was therefore appointed to devise a plan for a better arrangement of the Sections and a more rigid examination of papers submitted for publication. This committee, of which Dr. E. Lloyd Howard of Maryland was chairman, reported at the St. Louis meeting (24th) in 1873 and proposed a reduction in the number of Sections from six to five, which should be as follows:

1. Practical Medicine, Materia Medica and Physiology.
2. Obstetrics and Diseases of Women and Children.
3. Surgery and Anatomy.
4. Medical Jurisprudence, Chemistry and Psychology.
5. State Medicine and Public Hygiene.

The Section on State Medicine and Public Hygiene was to be composed of one member from each state, representing as far as practicable the state boards of health, and its officers were to be designated by the committee on nomination.

This report and the resolution making the changes suggested were accepted at this meeting and the Sections rearranged accordingly. It will be seen that we have thus one Section omitted—that on Medical Topography, etc.—two altered and consolidated and two new ones, those on Obstetrics and State Medicine, and one unchanged. Of the new ones, the Section on Obstetrics has given off the Section on Diseases of Children in 1880, but it is otherwise unchanged at the present time. Its list of officials so far as ascertained is as follows:

H. M. Bracken, Minneapolis, Minn., Secretary, Section on Hygiene and Sanitary Science.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

YEAR.	CHAIRMAN.	SECRETARY.
1873	Theo. Parvin (Ind.)	M. A. Pallen (Mo.).
1874	W. H. Byford (Ill.)	S. C. Busey (D. C.).
1875	S. C. Busey (D. C.)	R. Battey (Ga.).
1876	J. P. White (N. Y.)	R. Battey (Ga.).
1877	E. W. Jenks (Mich.)	H. O. Marcy (Mass.).
1878	E. S. Lewis (La.)	J. R. Chadwick (Mass.).
1879	A. H. Smith (Pa.)	R. Battey (Ga.).

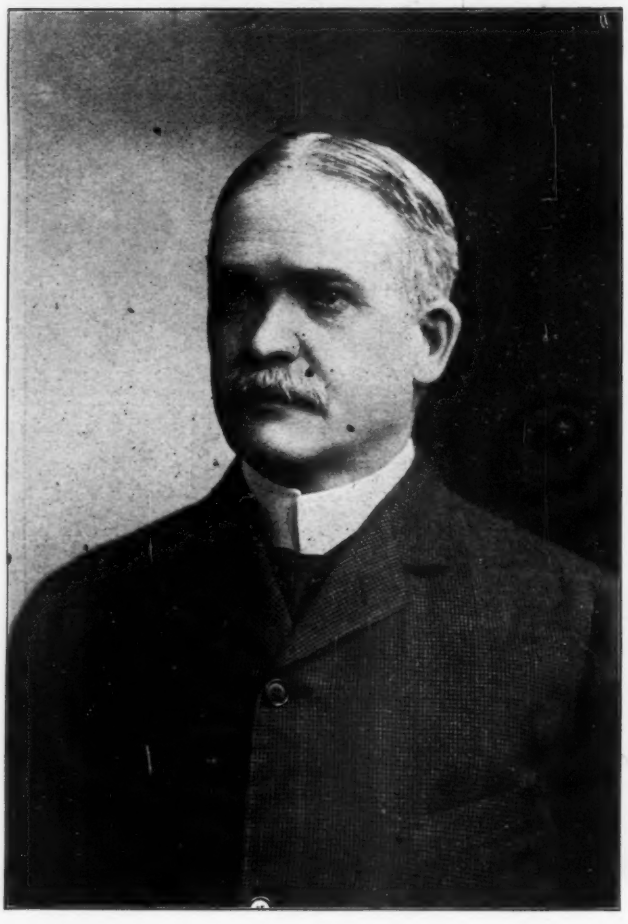
SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

1880	J. R. Chadwick (Mass.)	J. T. Johnson (D. C.).
1881	H. O. Marcy (Mass.)	C. V. Mottram (Kan.).
1882	J. R. Bartlett (Wis.)	G. A. Moses (Mo.).
1883	T. A. Reamy (Ohio)	J. T. Jelks (Ark.).
1884	R. S. Sutton (Pa.)	J. T. Jelks (Ark.).
1885	S. C. Gordon (Me.)	Paine (Tex.).
1886	F. M. Johnson (Mo.)	W. W. Jaggard (Ill.).

YEAR.	CHAIRMAN.	SECRETARY.
1887	E. Van De Warker (N. Y.)	E. W. Cushing (Mass.).
1888	W. H. Wathen (Ky.)	A. B. Carpenter (Ohio).
1889	W. W. Potter (N. Y.)	J. Hoffman (Pa.).
1890	C. A. L. Reed (Ohio)	H. A. Kelly (Md.).
1891	E. E. Montgomery (Pa.)	F. H. Martin (Ill.).
1892	J. M. Duff (Pa.)	
1893	J. Eastman (Ind.)	G. I. McKelway (Pa.).
1894	F. H. Martin (Ill.)	X. O. Werder (Ohio).
1895	J. T. Johnson (D. C.)	R. Peterson (Mich.).
1896	Milo B. Ward (Kan.)	G. H. Noble (Ga.).
1897	Jos. Price (Pa.)	C. Lester Hall (Mo.).
1898	A. H. Cordier (Mo.)	W. A. Haggard (Tenn.).
1899	W. E. B. Davis (Ala.)	F. F. Lawrence (Ohio).
1900	H. P. Newman (Ill.)	C. L. Bonifield (Ohio).
1901	J. H. Carstens (Mich.)	C. L. Bonifield (Ohio).

SECTION ON MEDICAL JURISPRUDENCE, CHEMISTRY AND PSYCHOLOGY.

This Section, formed in the reorganization of 1873, was really a consolidation of the Sections on Chemistry, Psychology and Medical Jurisprudence, the latter dividing also with the new Section on State Medicine and Hygiene. Under its new



Frank Allport, Chicago, Chairman, Section on Ophthalmology.

style the Section continued to 1879, under the following officers:

YEAR.	CHAIRMAN.	SECRETARY.
1873	A. N. Tilley (S. C.)	E. L. Howard (Md.).
1874	Jerome Cochran (Ala.)	G. A. Moses (Mo.).
1875	E. L. Howard (Md.)	E. A. Hildreth (W. Va.).
1876	Eug. Grissom (N. C.)	E. A. Hildreth (W. Va.).
1877	W. Kempster (Wis.)	E. A. Hildreth (W. Va.).
1878	W. M. Compton (Miss.)	L. M .Eastman (Md.).

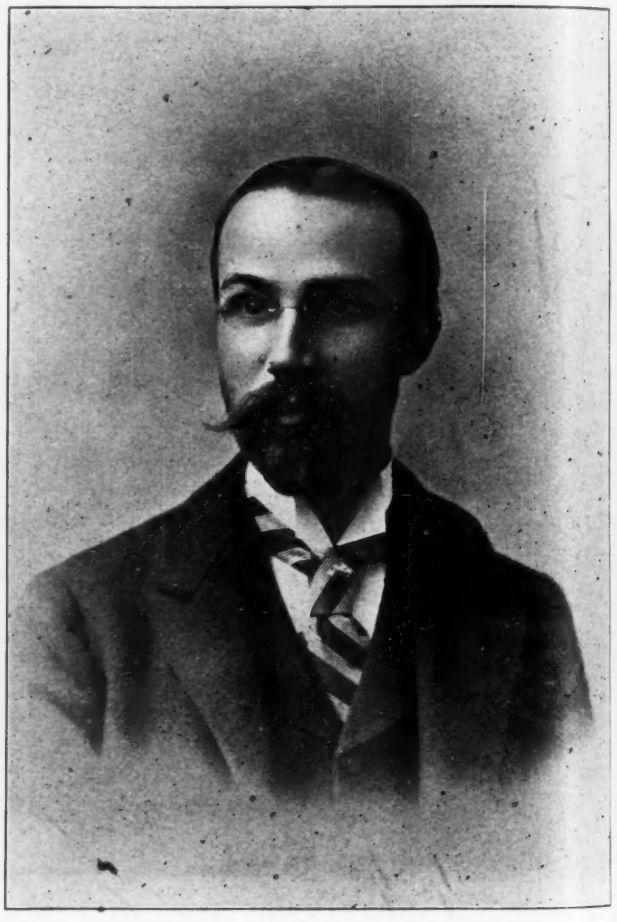
In 1879 it again changed, becoming merged with the Section on State Medicine. Medical Jurisprudence does not reappear as a section subject till 1887.

SECTION ON STATE MEDICINE AND PUBLIC HYGIENE.

This Section was organized in 1873, as already said, with representatives from each state, preferably representing boards of health and hence a quasi official organization, continued under that style and title till 1879, with the following officers:

YEAR.	CHAIRMAN.	SECRETARY.
1873	A. N. Bell (N. Y.)	A. B. Stuart (Minn.).
1874	H. I. Bowditch (Mass.)	H. B. Baker (Mich.).
1875	R. C. Kedzie (Mich.)	E. M. Hunt (N. Y.).
1876	E. M. Hunt (N. J.)	D. R. Wallace (Tex.).
1877	J. L. Cabell (Va.)	J. T. Reeves (Wis.).
1878	J. S. Billings (U. S. A.)	J. T. Reeves (Wis.).

At the Atlanta meeting (30th) in 1879 it was on motion of Dr. A. N. Bell consolidated with the Section on Chemistry and Psychology, under the title of the Section on State Medicine, Public Hygiene, Chemistry and Psychology, with Dr. J. F. Hibberd of Indiana as chairman and Dr. J. F. Wood of North Carolina, secretary. The following year its name was changed to the Section on State Medicine. The method of nomination of members of this section was retained, according to the minutes, till 1891 when, by an amendment offered by Dr. N. S. Davis, it selected its own officers. In 1900 its name was changed to Section on Hygiene and Sanitary Science. Its roster of officers from the consolidation to the present is as follows:



C. A. Veasey, Philadelphia, Secretary, Section on Ophthalmology.

SECTION ON STATE MEDICINE, PUBLIC HYGIENE, CHEMISTRY AND PSYCHOLOGY.

YEAR.	CHAIRMAN.	SECRETARY.
1879	J. F. Hibberd (Ind.)	J. F. Wood (N. C.).
1880	J. T. Reeve (Wis.)	R. G. Jennings (Ark.).
1881	A. L. Gibson (U. S. N.)	J. H. Sears (Tex.).
1882	Foster Pratt (Mich.)	Thos. L. Neal (Ohio).
1883	D. J. Roberts (Tenn.)	C. W. Franzoni (D. C.).
1884	E. W. Schaeffer (Mo.)	J. N. McCormack (Ky.).
1885	J. H. Rauch (Ill.)	F. E. Daniell (Tex.).
1886	G. H. Rohe (Md.)	W. Wyman (U. S. M. H.).
1887	H. B. Baker (Mich.)	S. T. Armstrong (Tenn.).
1888	J. B. Lindsay (Tenn.)	S. T. Armstrong (U. S. M. H.).
1889	J. B. Hamilton (D. C.)	F. S. Bascum (Utah).
1890	J. D. Plunkett (Tenn.)	F. S. Bascum (Utah).
1891	Benj. Lee (Pa.)	L. F. Flick (Pa.).
1892	C. A. Lindsley (Conn.)	S. P. Duffield (Mich.).
1893	G. W. Stoner (U. S. M. H.)	C. H. Shephard (N. Y.).
1894	L. H. Montgomery (Ill.)	C. H. Shephard (N. Y.).
1895	C. H. Shephard (N. Y.)	Elmer Lee (Ill.).
1896	Elmer Lee (Ill.)	L. F. Bishop (N. J.).
1897	J. N. Quimby (N. J.)	A. R. Reynolds (Ill.).
1898	A. R. Reynolds (Ill.)	W. P. Munn (Col.).
1899	W. C. Woodward (D. C.)	Amand Ravold (Mo.).

SECTION ON HYGIENE AND SANITARY SCIENCE.

YEAR.	CHAIRMAN.	SECRETARY.
1900	Ernest Wende (N. Y.)	J. N. Hurty (Ind.).
1901	A. R. Reynolds (Ill.)	H. M. Bracken (Minn.).

SECTION ON OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

In 1878, this Section was constituted, and the following year was in working order. It continued as such till the year 1888, when the Section on Laryngology and Otology was separated; it has since been known as simply the Section on Ophthalmology. The following is its list of officers:

YEAR.	CHAIRMAN.	SECRETARY.
1879	B. A. Pope (Mo.)	Eug. Smith (Mich.).
1880	D. S. Reynolds (Ky.)	S. M. Barrett (D. C.).
1881	D. B. St. John Roosa (N.Y.)	J. Solis Cohen (Pa.).
1882	A. W. Calhoun (Ga.)	Carl Seiler (Pa.).
1883	J. F. Chisholm (Md.)	J. L. Thompson (Ind.).
1884	J. A. White (Va.)	Eug. Smith (Mich.).
1885	Eugene Smith (Mich.)	J. F. Fulton (Minn.).
1886	X. C. Scott (Ohio)	J. H. Thompson (Md.).
1887	F. C. Hotz (Ill.)	
1888	G. E. Frothingham (Mich.)	G. C. Savage (Tenn.).

SECTION ON OPHTHALMOLOGY.

1889	S. C. Ayres (Ohio)	E. J. Gardner (Ill.).
1890	L. Connor (Mich.)	T. E. Murrell (Ark.).

H. M. McClanahan, Omaha, Neb., Chairman, Section on Diseases of Children.

1891	J. Thompson (Ind.)	G. E. de Schweinitz (Pa.).
1892	S. D. Risley (Pa.)	H. H. Gradle (Ill.).
1893	A. R. Baker (Ohio)	L. H. Taylor (Pa.).
1894	Edw. Jackson (Pa.)	H. V. Würdemann (Wis.).
1895	Lucien Howe (N. Y.)	Frank Allport (Ill.).
1896	G. E. de Schweinitz (Pa.)	H. M. Starkey (Ill.).
1897	H. Gifford (Neb.)	R. Randolph (Md.).
1898	Casey A. Wood (Ill.)	A. H. Williams (Mass.).
1899	H. V. Würdemann (Wis.)	C. F. Clark (Ohio).
1900	J. A. Lippincott (Pa.)	E. C. Ellet (Tenn.).
1901	F. Allport (Ill.)	C. A. Veazy (Pa.).

SECTION ON DISEASES OF CHILDREN.

At the New York meeting of the Association (31st) in 1880, on motion of Dr. M. A. Pallen, a temporary Section on Diseases of Children was added to those already existing, and was later, by request of its members, made a permanent one by a unanimous adoption of an amendment to the by-laws proposed by Drs. S. C. Busey. It has continued, without change in its name, an active Section down to the present. The following is its list of officers:

TEMPORARY ORGANIZATION.

S. C. Busey (D. C.) ..... Frank Woodbury (Pa.).

YEAR.	CHAIRMAN.	SECRETARY.
1880	A. Jacobi (N. Y.)	W. H. Bradford (Mass.).
1881	S. C. Busey (D. C.)	W. Lee (Md.).
	(Wm. Lee, in absence of Dr. Busey, chairman, at meeting in 1882, and E. C. Miller (Iowa) secretary).	
1882	R. F. Blount (Ind.)	J. H. Sears (Tex.).
	(C. W. Earle (Ill.) elected in his absence.)	(E. L. Bothby (Wis.) elected in his absence.)
1883	Wm. Lee (Md.)	W. R. Tipton (N. M.).
1884	J. H. Pope (Tex.)	S. S. Adams (D. C.).
1885	W. D. Haggard (Tenn.)	W. B. Lawrence (Ark.).
1886	Delaskie Miller (Ill.)	W. B. Lawrence (Ark.).
1887	F. E. Waxham (Ill.)	W. B. Lawrence (Ark.).
1888	J. A. Larrabee (Ky.)	C. J. Jennings (Mich.).
1889	I. N. Love (Mo.)	E. F. Brush (N. Y.).
1890	W. P. Watson (N. J.)	H. A. Hare (Pa.).
1891	E. F. Brush (N. Y.)	B. A. Waddington (N. J.).

Frank X. Walls, Chicago, Secretary, Section on Diseases of Children.

1892	C. G. Jennings (Mich.)	F. S. Parsons (Mass.).
1893	W. S. Christopher (Ill.)	F. A. Churchill (Ill.).
1894	E. H. Small (Pa.)	G. W. McNeil (Pa.).
1895	A. C. Cotton (Ill.)	J. A. Work (Ind.).
1896	J. A. Larrabee (Ky.)	H. E. Tuley (Ky.).
1897	J. P. Crozier Griffith (Pa.)	E. Rosenthal (Pa.).
1898	H. E. Tuley (Ky.)	J. L. Booker (Mo.).
1899	E. Rosenthal (Pa.)	L. Fischer (N. Y.).
1900	S. W. Kelly (Ohio)	W. E. Darnall (N. J.).
1901	H. M. McClanahan (Neb.)	F. X. Walls (Ill.).

We have been aided in this sketch by the address of the chairman, Dr. Larrabee, given in 1897.

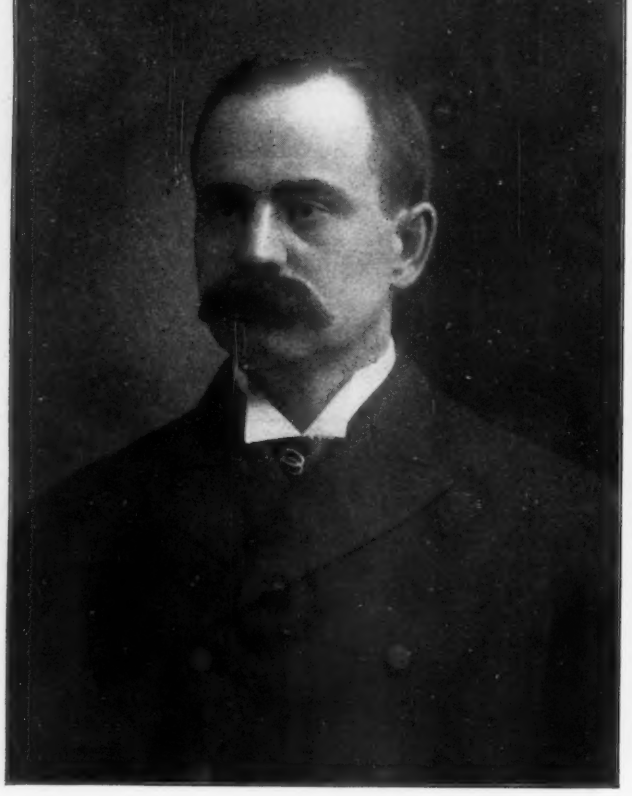
SECTION ON DENTISTRY.

As regards the Dental Section, the following is contributed by Dr. N. S. Davis: "A small number of dentists became members of the American Medical Association and participated in the proceedings from an early period in its history. But they gained this membership not as dentists but as graduated M.D's. and members of the regular medical societies where they lived.

Such was the case with the late Dr. W. W. Allport and E. S. Talbot of Chicago, Dr. D. H. Goodwillie of New York, and John S. Marshall of Syracuse.

"Dentistry was first formally recognized as a legitimate part of the general field of medicine and surgery and provision made for admitting dentists and the organization of a Section on Dentistry which name was changed the next year to Dental and Oral Surgery at the meeting of the American Medical Association in Richmond, Va., 1881. The movement was suggested by Drs. Allport, Talbot and Marshall, who thought a good section could be sustained. The necessary amendment to the by-laws of the Association was moved by Dr. S. D. Gross and seconded by both Lewis A. Sayre and myself and were adopted with little or no opposition. The new section was organized at the next annual meeting of the Association, which was at St. Paul in 1882 and has been fairly well sustained every year since."

This Section, as will be seen by the following list of officers, is unique among the Sections in having almost a permanent secretary, Dr. E. S. Talbot, to whose interest and energy it must owe much of its success. Since 1898 it has been known as the Section on Stomatology.



A. H. Peck, Chicago, Chairman, Section on Stomatology.

SECTION ON DENTISTRY.

YEAR.	CHAIRMAN.	SECRETARY.
1881	D. H. Goodwillie (N. Y.)	T. W. Brophy (Ill.).

SECTION ON DENTAL AND ORAL SURGERY.

1882	D. H. Goodwillie (N. Y.)	T. W. Brophy (Ill.).
1883	T. W. Brophy (Ill.)	J. S. Marshall (Ill.).
1884	A. W. Harlan (Ill.)	A. E. Baldwin (Ill.).
1885	J. S. Marshall (Ill.)	E. S. Talbot (Ill.).
1886	J. S. Marshall (Ill.)	E. S. Talbot (Ill.).
1887	J. Taft (Ohio)	E. S. Talbot (Ill.).
1888	F. H. Rehwinket (Ohio)	E. S. Talbot (Ill.).
1889	J. L. Williams (Mass.)	E. S. Talbot (Ill.).
1890	E. S. Talbot (Ill.)	H. W. Morgan (Tenn.)
1891	J. Taft (Ohio)	E. S. Talbot (Ill.)
1892	A. E. Baldwin (Ill.)	E. S. Talbot (Ill.)
1893	M. H. Fletcher (Ohio)	E. S. Talbot (Ill.).
1894	M. H. Fletcher (Ohio)	E. S. Talbot (Ill.).
1895	R. R. Andrews (Mass.)	E. S. Talbot (Ill.).
1896	R. R. Andrews (Mass.)	E. S. Talbot (Ill.).
1897	G. V. I. Brown (Minn.)	E. S. Talbot (Ill.).

SECTION ON STOMATOLOGY.

YEAR.	CHAIRMAN.	SECRETARY.
1898	G. V. I. Brown (Minn.)	E. S. Talbot (Ill.).
1899	M. H. Fletcher (Ohio)	E. S. Talbot (Ill.).
1900	R. R. Andrews (Mass.)	E. S. Talbot (Ill.).
1901	A. H. Peck (Ill.)	E. S. Talbot (Ill.).

SECTION ON MEDICAL JURISPRUDENCE.

In the President's address at the St. Louis (37th) annual meeting of the Association the suggestion of two new sections, one on Medical Jurisprudence and one on Dermatology and Syphilis, was made. A committee was appointed (Drs. J. H. Murphy, A. L. Gihon, and A. Garcelon) to consider the President's recommendations and reported in favor of the same. The Section on Medical Jurisprudence had Neurology added to its title by motion of Dr. Callender of Tennessee in 1891, and in 1900 its name was still further changed to the Section on Nervous and Mental Diseases. Unlike the old Section on Psychology, of which it is the legitimate successor, it has been well supported, notwithstanding the special organizations devoted to its specialties. The changes in its name indicate fairly well the trend of its work. The following is the list of officers:

E. S. Talbot, Chicago, Secretary, Section on Stomatology.

YEAR.	CHAIRMAN.	SECRETARY.
1887	E. M. Reed (Md.)	C. B. Bell (Mass.).
1888	J. G. Kiernan (Ill.)	T. C. Evans (Md.).
1889	T. B. Evans (Md.)	T. D. Crothers (Conn.).
1890	T. D. Crothers (Conn.)	H. N. Moyer (Ill.).

SECTION ON MEDICAL JURISPRUDENCE AND NEUROLOGY.

1891	H. N. Moyer (Ill.)	G. D. Strowbridge (Pa.).
1892	C. K. Mills (Pa.)	J. D. Kiernan (Ill.).
1893	J. G. Kiernan (Ill.)	F. P. Norbury (Ill.).
1894	D. R. Brower (Ill.)	W. J. Gavigan (Colo.).
1895	T. D. Crothers (Conn.)	W. T. Herdman (Mich.).
1896	W. T. Herdman (Mich.)	C. H. Hughes (Mo.).
1897	C. H. Hughes (Mo.)	H. T. Patrick (Ill.).
1898	F. Peterson (N. Y.)	H. T. Patrick (Ill.).
1899	H. T. Patrick (Ill.)	F. S. Pearce (Pa.).

SECTION ON NERVOUS AND MENTAL DISEASES.

1900	H. A. Tomlinson (Minn.)	F. Savary Pearce (Pa.).
1901	R. Dewey (Wis.)	F. Savary Pearce (Pa.).

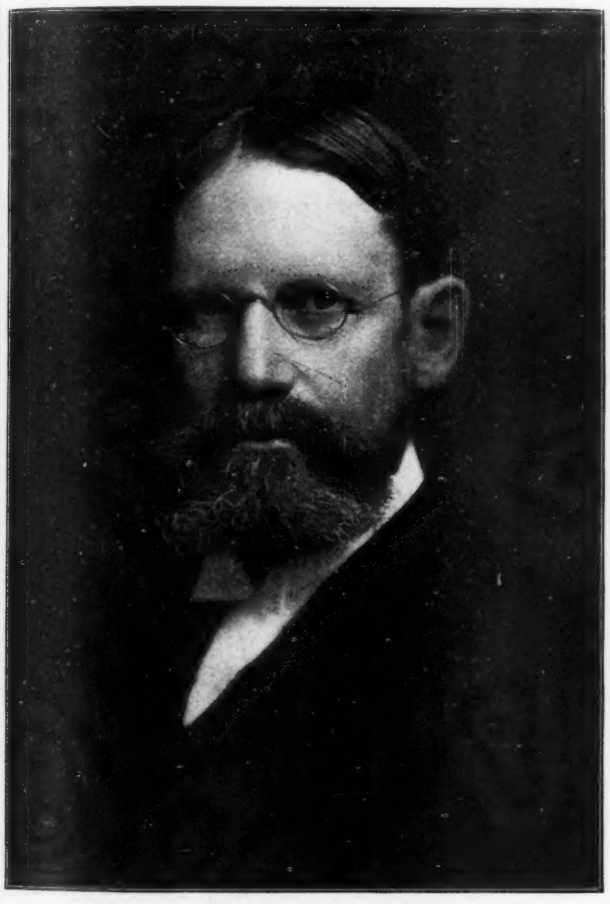
SECTION ON DERMATOLOGY AND SYPHILOGRAPHY.

The Section on Dermatology and Syphilography which was provided for under the same resolution as the preceding, continued under that name till 1898, since which year it has been known as the Section on Cutaneous Medicine and Surgery. It has been officered as follows since its organization:

YEAR.	CHAIRMAN.	SECRETARY.
1887	L. D. Bulkley (N. Y.)	F. F. Dunlop (Ky.).
1888	L. D. Bulkley (N. Y.)	W. T. Corlett (Ohio).
1889	J. E. Atkinson (Md.)	W. T. Corlett (Ohio).
1890	L. D. Bulkley (N. Y.)	W. T. Corlett (Ohio).
1891	L. D. Bulkley (N. Y.)	J. C. McGuire (D. C.).
1892	L. A. Duhring (Pa.)	W. H. Dunlop (N. Y.).
1893	A. H. Ohmann-Dumesnil (Mo.)	L. F. Frank (Wis.).
1894	A. E. Regensburger (Colo.)	D. H. Rand (Ore.).
1895	L. D. Bulkley (N. Y.)	T. C. Gilchrist (Md.).
1896	A. Ravogli (Ohio)	T. C. Gilchrist (Md.).
1897	A. W. Brayton (Ind.)	T. C. Gilchrist (Md.).

SECTION ON CUTANEOUS MEDICINE AND SURGERY.

1898	W. T. Corlett (Ohio)	J. M. Blaine (Colo.).
1899	L. D. Bulkley (N. Y.)	R. R. Campbell (Ill.).



Richard Dewey, Wauwatosa, Wis., Chairman, Section on Nervous and Mental Diseases.

1900	W. L. Baum (Ill.)	R. R. Campbell (Ill.).
1901	H. W. Stelwagon (Pa.)	R. R. Campbell (Ill.).

SECTION ON LARYNGOLOGY AND OTOLOGY.

In 1884 an amendment to the constitution was offered by Dr. Carl Seiler of Pennsylvania, which lay dormant till 1888, when it was called up by resolution on the request of the Section on Ophthalmology and the new Section of Laryngology and Otology was created. Its officers were elected at the Cincinnati meeting that year and appear in the list below:

YEAR.	CHAIRMAN.	SECRETARY.
1888	W. H. Daly (Pa.)	E. F. Ingals (Ill.).
1889	J. O. Roe (N. Y.)	F. H. Potter (N. Y.).
1890	Carl Seiler (Pa.)	A. B. Thrasher (Ohio).
1891	C. H. Burnett (Pa.)	
1892	E. L. Shurly (Mich.)	J. E. Boylan (Ohio).
1893	E. F. Ingals (Ill.)	J. F. Fulton, (Minn.).
1894	J. F. Fulton (Minn.)	T. J. Gallaher (Pa.).
1895	G. V. Woolen (Ind.)	M. R. Ward (Pa.).
1896	W. E. Casselberry (Ill.)	Braden Kyle (Pa.).
1897	B. A. Randall (Pa.)	S. E. Solly (Colo.).
1898	P. R. Holmes (Ohio)	Emanuel Mayer (N. Y.).
1899	P. R. Holmes (Ohio)	J. A. Stucky (Ky.).
1900	J. N. Mackenzie (Md.)	G. C. Stout (Pa.).
1901	G. Hudson Makuen (Pa.)	J. F. Barnhill (Ind.).

SECTION ON MATERIA MEDICA, PHARMACY AND THERAPEUTICS.

At the Nashville (41st) meeting of the Association in 1890, a committee that had been appointed to confer with the American Pharmaceutical Association made its report, as the result of which a resolution was adopted, dropping the words Materia Medica from the title of the Section on Practical Medicine, etc., and creating a new Section of Materia Medica and Pharmacy, to be added to those already existing. Later, about 1897, its name was changed to the Section on Materia Medica, Pharmacy and Therapeutics.

YEAR.	CHAIRMAN.	SECRETARY.
1891	F. Woodbury (Pa.)	W. L. Whelpley (Mo.).
1892	F. Woodbury (Pa.)	F. E. Stewart (N. Y.).
1893	F. Woodbury (Pa.)	F. E. Stewart (N. Y.).

F. Savary Pearce, Philadelphia, Secretary, Section on Nervous and Mental Diseases.

1894	W. L. Whelpley (Mo.)	G. F. Hansen (Colo.).
1895	F. E. Stewart (Mich.)	
1896	W. B. Hill (Wis.)	F. Woodbury (Pa.).
1897	J. V. Shoemaker (Pa.)	C. C. Fite (resigned). L. L. Solomon (Ky.).
1898	F. H. Stucky (Ky.)	L. L. Solomon (Ky.).
1899	L. L. Solomon (Ky.)	J. W. Wainwright (N. Y.).
1900	N. S. Davis, Jr. (Ill.)	J. N. Upshur (Va.).
1901	G. F. Butler (Mich.)	C. S. N. Hallberg (Ill.).

SECTION OF PHYSIOLOGY AND DIETETICS.

This Section budded off from the Section on Practical Medicine by an amendment offered by Dr. E. A. Wood, which was almost unanimously adopted. Its existence ended in 1901 with its consolidation with the Section on Pathology and Bacteriology to form the new Section on Physiology and Pathology.

A provisional Section on Pathology and Bacteriology had been arranged by correspondence and an unofficial committee appointed by the President, Dr. Keen, for its organization prior to the Atlantic City meeting in 1900. By resolution offered by

Dr. E. D. Ferguson at that meeting this was made a permanent Section and its officers elected. Its existence under this title, however, was short as at the following (St. Paul, 1901) meeting the above-mentioned consolidation and change of name was effected. It was considered desirable to unite the scientific work of the two sections as their separate attendance was small.

For convenience we give the roster of officers of the three sections together.

YEAR.	CHAIRMAN.	SECRETARY.
1892	C. H. A. Kleinschmidt (D. C.).	Ephriam Cutter (N. Y.).
1891	C. H. A. Kleinschmidt (D. C.).	Ephriam Cutter (N. Y.).
1893	I. N. Love (Mo.)	Ephriam Cutter (N. Y.).
1894	E. H. Woolsey (Colo.)	C. G. Chaddock (Mo.).
1895	H. Bert Ellis (Colo.)	H. Salzer (Md.).
1896	A. P. Clarke (Mass.)	Ephriam Cutter (N. Y.).
1897	Randall Hunt (La.)	A. H. Tuttle (Mass.).
1898	J. Weir, Jr. (Ky.)	Lee Kahn (Colo.).
1899	Elmer Lee (N. Y.)	R. Harvey Cook (Ohio).

Henry W. Stelwagon, Philadelphia, Chairman, Section on Cutaneous Medicine and Surgery.

SECTION ON PATHOLOGY AND BACTERIOLOGY.

1900	L. Hektoen (Ill.)	F. B. Wynne (Ind.).

SECTION ON PHYSIOLOGY AND PATHOLOGY.

1901	F. B. Wynne (Ind.)	J. McFarland (Pa.).

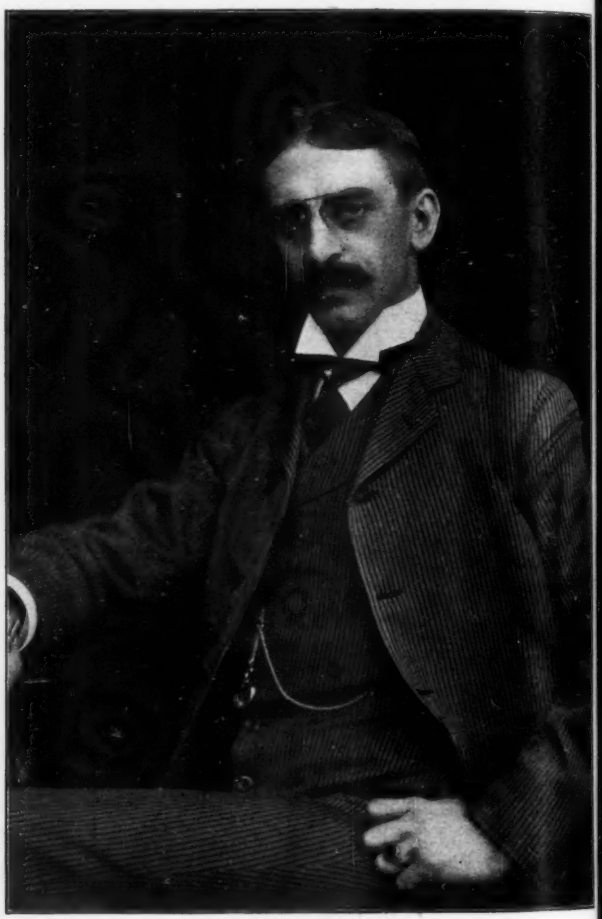
It has been considerable labor to compile even the bald facts above enumerated, partly because of the scattered items in the minutes of the general meetings of the Association, in which changes were made, and partly because of the defective nature of the records. Some years there was no record of the Sections whatever, in others no mention of changes of name, election of officers, etc. The publication of the official section minutes, never complete, has been suspended since the last volume of the Transactions until last year, when it was resumed. All these facts increased the difficulties, and it may be that some important omission has been made. It is believed, however, that with possibly one or two such this record is reliable.

Association Officers.

The following is a list of the principal officers of the Association from its inception to 1902. The dates given are those of their election, except in the case of those appointed to deliver the annual addresses. The years given in their case are those in which the actual service was performed. The section officers are given elsewhere in the history of the sections.

In the early years of the Association two secretaries were elected annually; both are included in the list. Since the office of permanent secretary was provided for there has been for many years an assistant local secretary appointed each year; these are not included.

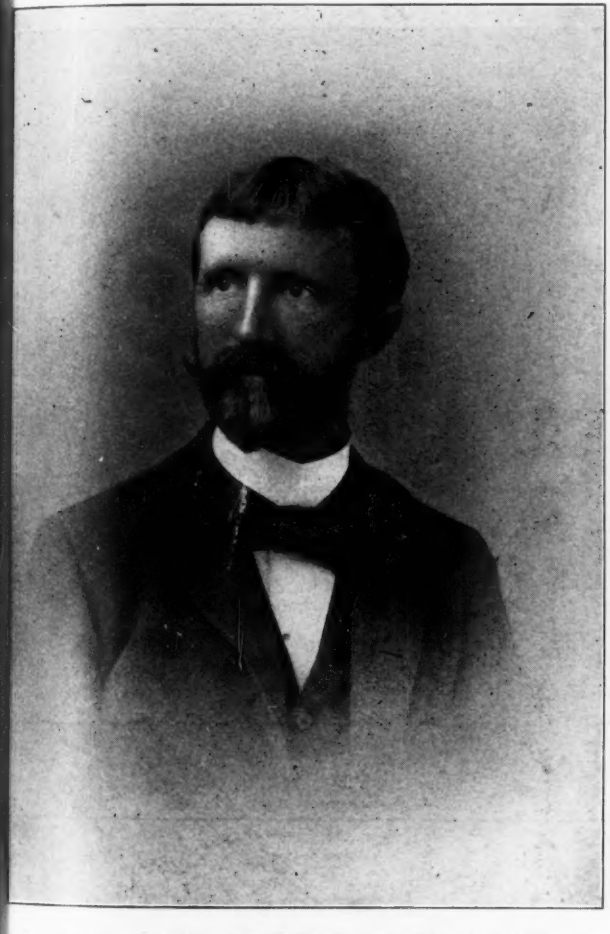
Alexander, C. (Wis.), V.-Pres., 1885.
Allen, J. M. (Mo.), V.-Pres., 1899.
Almy, I. O. (Ohio), V.-Pres., 1866.
Anderson, W. H. (Ala.), V.-Pres., 1881.
Arnold, R. D. (Ga.), Secy., 1846; V.-Pres., 1851.
Ashford, F. A. (D. C.), Libr., 1871.



R. R. Campbell, Chicago, Secretary, Section on Cutaneous Medicine and Surgery.

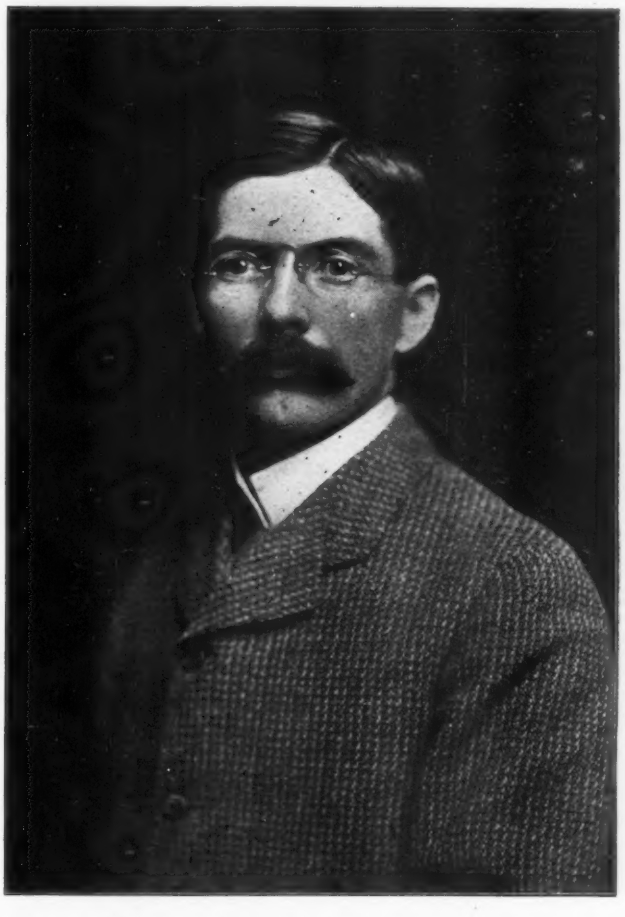
Askew, Henry F. (Del.), V.-Pres., 1859; Pres., 1867.
Atkinson, W. B. (Pa.), Perm. Secy., 1864 to 1899.
Atlee, Jno. O. (Pa.), V.-Pres., 1868; Pres., 1882.
Awl, W. M. (Ohio), V.-Pres., 1848.
Bailey, J. W. (Ga.), V.-Pres., 1888.
Baldwin, W. O. (Ala.), Pres., 1869.
Bartlett, J. K. (Wis.), V.-Pres., 1872.
Bascom, F. S. (Utah), V.-Pres., 1894.
Beadle, E. A. (N. Y.), Secy., 1852-3.
Bemiss, S. M. (Ky.), Secy., 1858-9.
Bemiss, S. M. (La.), V.-Pres., 1869.
Blatchford, T. W. (N. Y.), V.-Pres., 1856.
Boling, W. M. (Ala.), V.-Pres., 1855.
Bowditch, H. I. (Mass.), Secy., 1848; V.-Pres., 1867; Pres., 1875.
Bowling, W. K. (Tenn.), V.-Pres., 1856; V.-Pres., 1867; Pres., 1875.
Brainerd, Daniel (Ill.), V.-Pres., 1856.
Breckenridge, R. J. (Ky.), V.-Pres., 1857.
Briggs, W. T. (Tenn.), V.-Pres., 1873; Trustee, 1887 to 1890; Pres., 1890.
Brinsmade, T. C. (N. Y.), V.-Pres., 1867.
Brisbane, W. H. (Wis.), V.-Pres., 1856.
Brodie, W. (Mich.), Secy., 1855-6; V.-Pres., 1875; Pres., 1885.
Brower, D. R. (Ill.), Oration in State Medicine, 1899.
Brown, Hawkins (Ky.), V.-Pres., 1892.

Brown, H. W. (Tex.), V. Pres., 1875.
Buchanan, A. H. (Tenn.), V.-Pres., 1847.
Buel, W. P., Secy., 1846.
Busey, S. C. (D. C.), V.-Pres., 1877; Oration in State Medicine, 1898.
Byford, W. H. (Ind.), V.-Pres., 1857.
Cabell, J. L. (Va.), Oration in State Medicine, 1888.
Cain, J. B. (Tenn.), Oration in Medicine, 1892.
Calhoun, A. W. (Ga.), V.-Pres., 1900.
Campbell, H. F. (Ga.), V.-Pres., 1857; Trustee, 1882 to 1887; Pres., 1884.
Carpenter, Horace (Ore.), V.-Pres., 1881.
Carr, E. S. (Wis.), V.-Pres., 1863.
Carroll, A. L. (N. Y.), Oration in State Medicine, 1890.
Catlin, B. H. (Conn.), V.-Pres., 1873.
Chapman, N. (Pa.), Pres., 1847.
Chisholm, J. J. (Md.), V.-Pres., 1895.
Clarke, A. C. (Mass.), V.-Pres., 1895.
Cole, R. Beverly (Cal.), V.-Pres., 1883; Oration in Medicine, 1888; Pres., 1895.
Colvin, Dr. (N. Y.), V.-Pres., 1887.
Condict, Lewis (N. J.), V.-Pres., 1853.
Condie, D. F. (Pa.), Treas., 1852 to 1854.
Connor, L. (Mich.), V.-Pres., 1882; Trustee, 1882- to 1894.
Connor, P. S. (Ohio), Oration in Surgery, 1889.
Couper, Jas. (Del.), V.-Pres., 1863.



G. Hudson Makuen, Philadelphia, Chairman, Section on Laryngology and Otology.

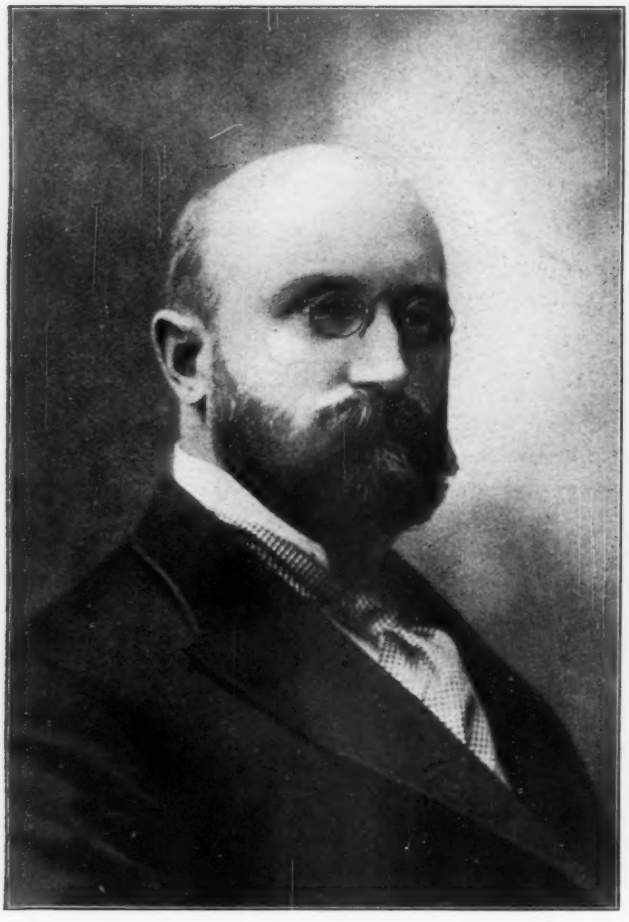
Cox, C. C. (Md.), V.-Pres., 1863.
Crosby, Josiah (N. H.), V.-Pres., 1858.
Culbertson, J. C. (Ohio) Editor, 1891-1893.
Davis, N. S. (Ill.) V.-Pres., 1854; Pres., 1864-1865; Trustee, 1882 to 1884; Editor, 1883-1888; Oration in Medicine, 1890.
Davis, N. S., Jr. (Ill.), Oration in Medicine, 1901.
Davis, W. E. B. (Ala.), V.-Pres., 1891.
Dawson, W. W. (Ohio), Pres., 1888; Trustee, 1889-1893.
De Saussure, H. W. (S. C.), Secy., 1850-1851.
Dibrell, J. A. (Ark.), V.-Pres., 1901.
Didama, H. D. (N. Y.), V.-Pres., 1875.
Durbar, J. R. W. (Md.), Secy., 1847 to 1848.
Dungleson, R. J. (Pa.), Treas., 1878 to 1894.
Dunlap, A. (Ohio), V.-Pres., 1878.
Dunn, T. C. (R. I.), V.-Pres., 1866.
Eastman, Jos. (Ird.), Trustee, 1894 to 1900.
Edwards, T. O. (Iowa), V.-Pres., 1858.
Evans, T. B. (Md.), V.-Pres., 1889.
Eve, Duncan (Tenn.), V.-Pres., 1887.
Eve, Paul F. (Tenn.), V.-Pres., 1848; Pres., 1857.
Fenner, E. D. (La.), V.-Pres., 1854.
Ferguson, E. D. (N. Y.), V.-Pres., 1899.
Flint, Austin (N. Y.), V.-Pres. 1849; Pres., 1883.
Flint, Austin, Jr. (N. Y.), Oration in Medicine, 1897.
Flint, J. B. (Ky.), V.-Pres., 1851.
Foster, R. C. (Tenn.), Secy., 1856-1857.
Frost, H. R. (S. C.), V.-Pres., 1853.
Fuller, A. J. (Me.), V.-Pres., 1879.
Fulton, Jno. F. (Minn.), Trustee, 1901.
Furman, Guido (N. Y.), Secy., 1863.
Gadbury, W. T. (Miss.), V.-Pres., 1874.
Garcelon, A. (Me.), Trustee, 1882 to 1901; V.-Pres., 1901.
Garnett, A. Y. P. (D. C.), V.-Pres., 1885; Pres., 1887.
Geddings, E. (S. C.), V.-Pres., 1856.
Ghent, H. C. (Tex.), V.-Pres., 1884.
Gibbons, H. (Cal.), V.-Pres., 1871.
Gibson, A. L. (U. S. N.), V.-Pres., 1883.
Gibson, L. P. (Ark.), V.-Pres., 1890.
Gooch, P. C. (Va.), Secy., 1851.
Gordon, S. C. (Me.), V.-Pres., 1883.
Graham, D. W., Trustee, 1894 to 1897.
Graham, J. W. (Colo.), Trustee, 1894 to 1895; V.-Pres., 1898.
Grant, W. W. (Col.), Trustee, 1901.
Green, John (Mass.), V.-Pres., 1854.
Gregory, E. H. (Mo.), Pres., 1886.
Grissom, Eug. (N. C.), V.-Pres., 1882.
Gross, Samuel D. (Pa.), Pres., 1868.
Gunn, Moses (Ill.), V.-Pres., 1878.
Hamilton, J. B. (D. C.), Trustee, 1890-1893; Editor, 1893-1898; Oration in Surgery, 1893; Oration in State Medicine, 1897.
Happel, T. J. (Tenn.), V.-Pres., 1897; Trustee, 1898 to —
Hare, H. A. (Pa.), Oration in Medicine, 1893.



J. F. Barnhill, Indianapolis, Ind., Secretary, Section on Laryngology and Otology.

Harrison, J. P. (Ohio), V.-Pres., 1849.
Hawes, Jesse (Colo.), V.-Pres., 1892.
Hays, Isaac (Pa.), Treas., 1847 to 1852.
Hayward, Geo. (Mass.), V.-Pres., 1851.
Heard, T. J. (Tex.), V.-Pres., 1871.
Heintze, F. E. B. (Md.), V.-Pres., 1864.
Hibbard, Jas. F. (Ind.), V.-Pres., 1866; Pres., 1893.
Hill, L. G. (N. H.), V.-Pres., 1881.
Hodgin, Jno. T. (Mo.), Pres., 1881.
Hollister, J. H. (Ill.), Trustee, 1883 to 1891.
Holton, H. D. (Vt.), V.-Pres., 1881; Oration in State Medicine, 1895.
Hooker, W. (Conn.), V.-Pres., 1864.
Hooper, P. O. (Ark.), V.-Pres., 1882; Trustee, 1882 to 1892.
Howard, R. L. (Ohio), V.-Pres., 1853.
Hubbard, S. G. (Conn.), Secy., 1859-1860.
Hughes, C. H. (Mo.), Oration in Medicine, 1894.
Hughes, J. C. (Iowa), V.-Pres., 1867.
Hunt, E. M. (N. J.), V.-Pres., 1880.
Husted, N. C. (N. Y.), V.-Pres., 1874.
Ingals, E. Fletcher (Ill.), Trustee, 1893 to 1896, 1900 to —
Ives, C. L. (Conn.), V.-Pres., 1872.
Ives, Eli (Conn.), Secy., 1859; Pres., 1860-1863.
Jackson, J. D. (Ky.), V.-Pres., 1876.
Jackson, J. W. (Minn.), V.-Pres., 1889.

Jackson, Samuel (Pa.), V.-Pres., 1848.
Jewell, W. (Pa.), V.-Pres., 1860.
Jones, H. (Vt.), V.-Pres., 1892.
Johnson, H. A., (Ill.), Secy., 1860-1863.
Johnson, H. L. E. (D. C.), Trustee, 1898 to —
Johnson, J. B. (Mo.), V.-Pres., 1850.
Johnson, W. P. (D. C.), V.-Pres., 1866.
Jonas, A. F. (Neb.), V.-Pres., 1901.
Keen, W. W. (Pa.), Oration in Surgery, 1897; V.-Pres., 1898; Pres., 1899.
Keller, J. M. (Ky.), V.-Pres., 1874.
Kimball, H. H. (Minn.), V.-Pres., 1889.
King, W. P. (Mo.), V.-Pres., 1891.
Kinlach, R. A. (S. C.), V.-Pres., 1883.
Kleinschmidt, C. H. A. (D. C.), Libr., 1883 to 1890.
Knight, Jonathan (Conn.), V.-Pres., 1847 and 1852; Pres., 1853.
Kober, Geo. M. (D. C.), Oration in State Medicine, 1901.
La Place, Ernest (Pa.), Oration in Surgery, 1894.
Lee, Wm. (D. C.), Libr., 1872-1883.
Le Grand, C. (Ala.), V.-Pres., 1895.
Lemoine, E. S. (Mo.), Secy., 1853-1854.
Lester, T. B. (Mo.), V.-Pres., 1883.
Lilly, Samuel (N. J.), V.-Pres., 1876.
Lindsley, C. A. (Conn.), V.-Pres., 1890; Oration in State Medicine, 1892.
Lindsley, Harvey (D. C.), Pres., 1858.
Logan, J. A. (Ga.), V.-Pres., 1860.



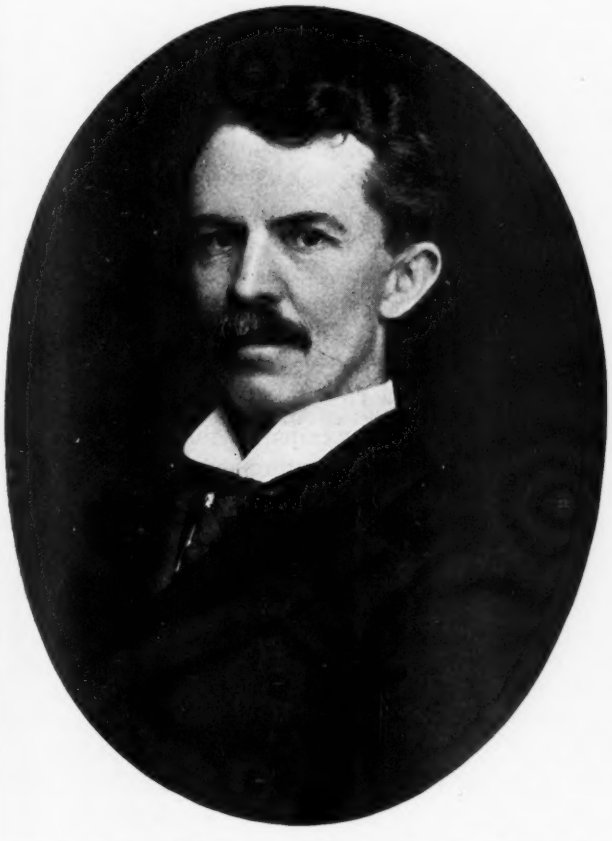
George F. Butler, Alma, Mich., Chairman, Section on Materia Medica, Pharmacy and Therapeutics.

Logan, Samuel (La.), V.-Pres., 1885.
Logan, Thos. M. (Cal.), V.-Pres., 1872; Pres., 1873.
Lopez, A. (Ala.), V.-Pres., 1850.
Love, I. N. (Mo.), Trustee, 1889 to 1901; V.-Pres., 1893.
Loving, S. (Ohio), V.-Pres., 1894.
Lynch, J. S. (Md.), V.-Pres., 1884.
March, Alden (N. Y.), Pres., 1863.
Marcy, H. O. (Mass.), V.-Pres., 1880; Pres., 1891.
Marvel, P. (N. J.), V.-Pres., 1900.
Mathews, J. M. (Ky.), Oration in Surgery, 1891; Trustee, 1896 to 1898; V.-Pres., 1897; Pres., 1898; Trustee, 1900 to —
McCrae, Floyd W. (Ga.), Oration in Surgery, 1899.
McDowell, J. N. (Mo.), V.-Pres., 1860.
McGuire, H. (Va.), V.-Pres., 1882; Oration in Surgery, 1890; Pres., 1892.
McGuire, H. H. (Va.), V.-Pres., 1849.
McLean, Donald (Mich.), Pres., 1894.
McMurtry, L. S. (Ky.), Trustee, 1882-1889, and 1893 to 1899.
McPheeters, W. M. (Mo.), V.-Pres., 1873.
Mendenhall, Geo. (Ohio), V.-Pres., 1869; Pres., 1870.
Mercer, S. D. (Neb.), V.-Pres., 1884.
Michel, R. F. (Ala.), V.-Pres., 1872.
Middleton, W. D. (Iowa), V.-Pres., 1899.
Millard, P. H. (Minn.), Trustee, 1892 to 1895.
Miller, E. H. (Minn.), V.-Pres., 1886.
Miller, Henry (Ky.), Pres., 1859.
Miller, Truman W. (Ill.), Trustee, 1897 to 1899.
Minney, J. E. (Kan.), V.-Pres., 1898.
Monroe, N. P. (Me.), V.-Pres., 1869.
Montgomery, E. E. (Pa.), Trustee, 1893 to 1902.
Moore, E. M. (N. Y.), Trustee, 1882 to 1890; Oration in Surgery, 1888; Pres., 1889.
Moore, J. S. (Mo.), V.-Pres., 1870.
Moore, R. C. (Neb.), V.-Pres., 1890.
Morris, J. (Md.), V.-Pres., 1879.
Moultrie, James (S. C.), V.-Pres., 1847; Pres., 1851.
Mudd, H. H. (Mo.), Oration in Surgery, 1893.
Murphy, J. H. (Minn.), V.-Pres., 1879.
Murphy, J. B. (Ill.), Oration in Surgery, 1898.
Murrell, T. (Ark.), V.-Pres., 1893.
Musser, J. H. (Pa.), Oration in Medicine, 1898.
Mussey, Reuben D. (Ohio), Pres., 1850.
Mussey, W. H. (Ohio), V.-Pres., 1864.
Nelson, D. E. (Tenn.), Trustee, 1890 to 1893.
Newman, H. P. (Ill.), Treas., 1894 (——).
Norris, G. W. (Pa.), V.-Pres., 1850.
O'Hagan, C. J. (N. C.), V.-Pres., 1887.
Osler, Wm. (Md.), Oration in Medicine, 1896.
Packard, J. H. (Pa.), Trustee, 1882 to 1887.
Palmer, A. B. (Mich.), V.-Pres., 1860.
Palmer, H. (Wis.), V.-Pres., 1891.

C. S. N. Hallberg, Chicago, Secretary, Section on Materia Medica, Pharmacy and Therapeutics.

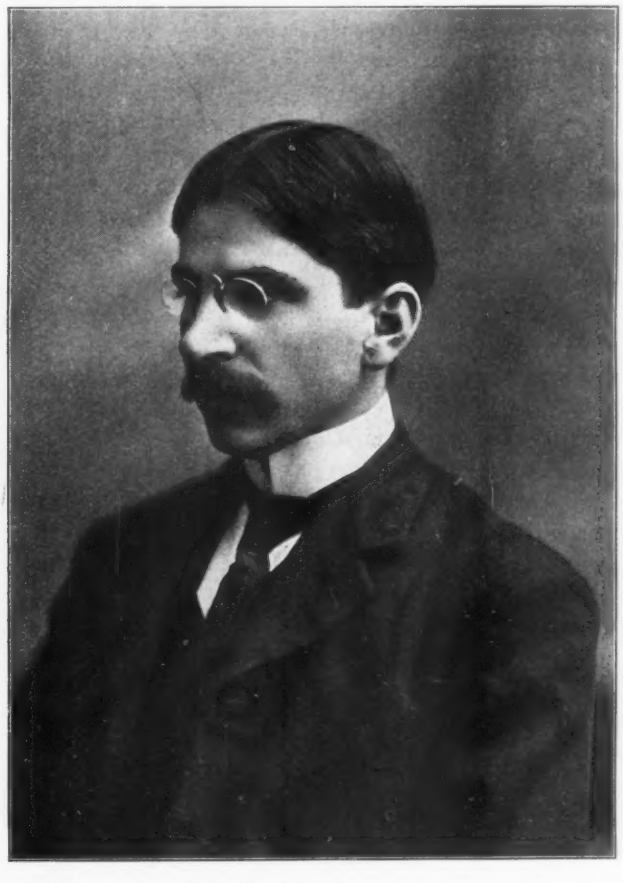
Pancoast, W. B. (Pa.), V.-Pres., 1886.
Parsons, J. W. (N. H.), V.-Pres., 1884.
Parsons, Usher (R. I.), V.-Pres., 1853.
Parvin, Theophilus (Ind.), Pres., 1879.
Patterson, I. C. (D. C.), Trustee, 1892 to 1894.
Patterson, W. C. (D. C.), Trustee, 1892.
Peck, W. F. (Iowa), V.-Pres., 1885.
Pepper, W. (Pa.), Oration in Medicine, 1889.
Pinkney, N. (U. S. N.), V.-Pres., 1876.
Pitcher, Zina (Mich.), Pres., 1856.
Pitman, N. J. (N. C.), V.-Pres., 1877.
Pollock, A. M. (Pa.), V.-Pres., 1873.
Pope, C. A. (Mo.), V.-Pres., 1852; Pres., 1854.
Porcher, R. P. (S. C.), V.-Pres., 1880.
Porter, Miles F. (Ind.), Trustee, 1900 (——).
Post, A. C. (N. Y.), V.-Pres., 1868.
Potter, W. W. (N. Y.), Trustee, 1891 to 1892.
Priestley, J. T. (Iowa), Trustee, 1894 to 1900.
Prince, D. (Ill.), V.-Pres., 1863.
Quine, W. E. (Ill.), Oration in Medicine, 1895; V.-Pres., 1900.
Rauch, J. H. (Ill.), Trustee, 1891 to 1894.
Reed, C. A. L. (Ohio), Trustee, 1896 to 1900; Pres., 1900.
Reese, D. M. (N. Y.), V.-Pres., 1857.
Reeves, J. E. (Tenn.), Trustee, 1895 to 1896.

Reyburn, Robert (D. C.), Libr., 1870.
Richardson, C. L. (D. C.), Libr., 1890.
Richardson, T. G. (La.), Pres., 1878.
Rodgers, W. B. (Tenn.), V.-Pres., 1897.
Rodman, W. L. (Pa.), Oration in Surgery, 1900; Trustee, 1900.
Rohe, Geo. H. (Md.), Oration in State Medicine, 1894 and 1896.
Russell, G. W. (Conn.), V.-Pres., 1878.
Satterthwaite, T. P. (Ky.), V.-Pres., 1895.
Savage, G. C. (Tenn.), Trustee, 1896 to 1898.
Sayre, Lewis A. (N. Y.), V.-Pres., 1870; Pres., 1880.
Schenk, W. L. (Kan.), V.-Pres., 1888; Oration in State Medicine, 1891.
Seelye, S. D. (Ala.), V.-Pres., 1876.
Semmes, A. J. (D. C.), Secy., 1857-8.
Senn, Nicholas (Ill.), Oration in Surgery, 1896; Pres., 1896.
Shakespeare, E. O. (Pa.), Trustee, 1887 to 1890.
Shoemaker, J. V. (Pa.), Trustee, 1890 to 1893.
Shurly, E. L. (Mich.), Oration in Medicine, 1891.
Simmons, Geo. H. (Ill.), Editor and Secretary, 1899 to ——.
Simons, T. T. (S. C.), V.-Pres., 1852.
Sims, J. Marion (N. Y.), Pres., 1876.
Smith, F. G. (Pa.), V.-Pres., 1870.
Smith, J. R. (U. S. A.), V.-Pres., 1877.
Smith, L. A. (N. J.), V.-Pres., 1859.
Souchon, E. (La.), V.-Pres., 1896.
Staples, F. (Minn.), V.-Pres., 1877.
Stedman, A. (Colo.), V.-Pres., 1887.
Stephens, Alex. H. (N. Y.), V.-Pres., 1847; Pres., 1848.



Frank B. Wynn, Indianapolis, Chairman, Section on Physiology and Pathology.

Sternberg, Geo. M. (D. C.), V.-Pres., 1896; Pres., 1897.
Stewart, R. S. (Va.), V.-Pres., 1849.
Stille, A. (Pa.), Secy., 1847 to 1851; Pres., 1871.
Stone, A. J. (Minn.), V.-Pres., 1901.
Stone, W. (La.), V.-Pres., 1870.
Storer, D. Humphreys (Mass.), V.-Pres., 1855; Pres., 1866.
Storer, H. R. (Mass.), V.-Pres., 1868.
Sutton, W. L. (Ky.), V.-Pres., 1858.
Taylor, W. E. (Cal.), V.-Pres., 1891.
Thomas, J. B. (Pa.), V.-Pres., 1896.
Thompson, J. L. (Ind.), V.-Pres., 1897.
Thomson, J. W. (Del.), V.-Pres., 1852.
Tilden, Daniel (Ohio), V.-Pres., 1855.
Toner, Jos. M. (D. C.), Pres., 1874; Trustee, 1882 to 1890.
Tripler, C. S. (U. S. A.), V.-Pres., 1859.
Tyler, Grafton (D. C.), V.-Pres., 1855.
Vaughan, V. C. (Mich.), Oration in State Medicine, 1900.
Walker, H. O. (Mich.), V.-Pres., 1888, 1892.
Warner, L. F. (Mass.), V.-Pres., 1874.
Warren, Jno. C. (Mass.), V.-Pres., 1848; Pres., 1849.
Warren, J. H. (Mass.), V.-Pres., 1889.
Warren, W. E. (N. C.), V.-Pres., 1858.
Watson, Wm. (Iowa), V.-Pres., 1894.
Weatherly, J. S. (Ala.), V.-Pres., 1871.
Webster, G. W. (Ill.), Libr., 1891 to 1901.
Welch, W. B. (Ark.), V.-Pres., 1886.
Welch, W. H. (Md.), Oration in State Medicine, 1889.
Wellford, Beverly R. (Va.), V.-Pres., 1851; Pres., 1852.
West, Calvin (Ind.), V.-Pres., 1859.
West, Francis (Pa.), Secy., 1854-1855.
West, H. A. (Tex.), V.-Pres., 1898.
Westmoreland, W. F. (Ga.), V.-Pres., 1879, 1896.
Wheaton, C. A. (Minn.), Oration in Surgery, 1895; V.-Pres., 1899.
Whelan, W. (D. C.), V.-Pres., 1864.
White, J. P. (N. Y.), V.-Pres., 1878.
Wiggin, F. H. (N. Y.), V.-Pres., 1897.
Wile, W. C. (Conn.), V.-Pres., 1886.
Willey, S. (Minn.), V.-Pres., 1871.
Wilson, J. C. (Pa.), Oration in Medicine, 1899.
Wingate, U. O. B. (Wis.), V.-Pres., 1893.
Wire, Geo. E. (Ill.), Libr., 1895 to 1897.
Wistar, Caspar (Pa.), Treas., 1855 to 1878.
Witherspoon, J. A. (Tenn.), Oration in Medicine, 1900.
Wood, Geo. B. (Pa.), Pres., 1855.
Wood, Isaac (N. Y.), Treas., 1854.
Woodbridge, J. E. (Ohio), Trustee, 1894 to 1896.
Woodbury, F. (Pa.), V.-Pres., 1888.
Woodhull, A. A. (U. S. A.), V.-Pres., 1900.
Woodward, J. J. (U. S. A.), V.-Pres., 1875; Pres., 1882. (In his absence Dr. P. O. Hooper, 1st V.-Pres., officiated.)
Wragg, W. (S. C.), V.-Pres., 1854.
Wyeth, Jno. A. (N. Y.), V.-Pres., 1893; Oration in Surgery, 1901; Pres., 1901.
Wyman, H. A. (Mich.), V.-Pres., 1890.



Joseph McFarland, Philadelphia, Secretary, Section on Physiology and Pathology.

Wyman, Walter (D. C.), Oration in State Medicine, 1893.
Yandall, D. W. (Pa.), V.-Pres., 1868; Pres., 1872.
Young, Noble (D. C.), V.-Pres., 1869.

Treatment of Uncontrollable Vomiting by Saline Injections.—Dr. R. Condamin of Lyons, France, treats patients with uncontrollable vomiting of pregnancy by rectal injections of 3 to 4 quarts of tepid saline solution fractioned during the day, not more than 300 gm. at a time. This combats the auto-intoxication which he assumes to be the cause of the vomiting and, supplemented by absolute withholding of all food, has cured eight severe cases in his experience, without the necessity of artificial delivery which otherwise seemed to be imperatively indicated.

Treatment of Bites.—Bujwid condemns the practice of thermocauterizing bites as it is almost inevitably done too late and is only superficial at best. It also produces a defect or deformity of the part. He recommends the use of tincture of iodin for the treatment of a bite in a comm nication to the *Przeglad Lekarski*.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

61 Market Street : : Chicago, Ill.

Cable Address: "Medic, Chicago"

Subscription price: Five dollars per annum in advance

SATURDAY, JUNE 7, 1902.

PERMANENT SECRETARIES FOR THE SECTIONS.

By reference to the history of the Sections, printed elsewhere in this issue, it will be noted that with one exception each of the Sections makes it a rule to elect a new secretary each year. We know of no other medical society, or, for that matter, any organization, that changes its secretary annually. A thought given to the subject will call to mind the fact that every successful medical society makes the office of secretary a more or less permanent one. This is because it is recognized as practically necessary for continued good work and for the carrying out of a definite policy.

The work connected with arranging a program is such that but few men are successful at it the first year. It requires certain knowledge that can only be had by experience. It is not every one who knows what constitutes a good program. Three years ago an earnest secretary of one of the Sections joyfully remarked that he had a splendid program, having nearly ninety titles. When his attention was called to the rule limiting the number of papers he was crestfallen. A few good papers, and these well discussed, will make a good meeting always; a lot of papers, with no time for discussion, will make an unsatisfactory meeting always. This is not known by the average secretary the first year, although he learns it by experience. There is an art in arranging titles so that papers bearing on the same subject can be read and debated together. In this regard the programs of some of the sections this year, as they do each year, show lack of a recognition of this principle on the part of those who arrange them.

The Sections, more than ordinary societies, should have a more or less permanent secretary on account of the peculiar relation they hold to the profession as a whole, and the necessity for the use of good judgment in accepting what may be offered, as well as on account of the rules governing them.

Each Section has, in large measure, an autonomy of its own, and yet with one, possibly two, exceptions they have no records, no rules. A former chairman of one of the Sections, Dr. H. T. Patrick, in his address called attention to the necessity of a permanent secretary, and, among other things, said:

> **And this leads me to another point. When, raw and callow, I first assumed the duties of secretary, I was astonished to learn that not a line of record, correspondence, instruction, precedent, hint or suggestion descended to me from my predecessor. For fourteen years motions had been made, amended, lost, carried and had quietly slipped into oblivion, leaving no trace behind. Policies had been endorsed and rejected, resolutions adopted, committees had been appointed, had reported and been discharged, and not a minute made. I submit to you that this is a slipshod way of conducting affairs.**

What Dr. Patrick found true as regards the Section on Nervous and Mental Diseases we found true of all Sections in writing up their history.

Each Section should have its own by-laws, subject, of course, to those of the American Medical Association, its own book of records, a general but fixed policy as to the scope of the scientific work it will cover, so that two, three and four Sections will not hereafter be found covering the same ground at the same annual session of the Association. To do all this there must be a continuation in office somewhere, and the only place it is possible is in the office of secretary.

As a rule, however, one who has been secretary for one year will hesitate to accept the office the second time. He has quite likely found his work wearisome, vexatious and unsatisfactory from various avoidable causes; when he has once "learned the ropes," the work will become simple, easy, and positively a pleasure. When we are urging the Sections to adopt this principle we are not suggesting something new; time and again in the past THE JOURNAL has advocated the same. Many of the Section officers, also, have done likewise.

A VOLUNTARY NATIONAL EXAMINING BOARD.

Dr. Rodman's communication in this issue, to which we wish to specially call attention, ought to clear up the atmosphere materially as regards the proposition of a voluntary national board of examiners. His plan is, in a way, a complete one, and he gives good reasons why it ought to succeed. In fact, he meets all the objections that are worth consideration very fully and fairly, and we do not see why his plan might not be adopted at once. It can easily be made elastic as to the place of examination, and as it is as probable that as large a percentage of graduates in western medical schools as of those of eastern ones would want to take the examination, it should be held also at other medical centers than those he mentions exclusively. We do not see any very serious difficulties in effecting this and thus obviating the only very serious objection raised to the plan.

The discretionary power suggested as regards specialists and men who have already made their reputation in medicine can be safely exercised by such a board as the one proposed, and hardly as well by any other. It is farcical to demand of one whose reputation is an honor to the profession of his country the same elementary and minute examinations as must be given the recent graduate, but any deviation from the rule must be carefully guarded, and hence the necessity of some possible detail as to this point—perhaps something like a special session of the board as a supreme council in such a case. Such matters, however, can be safely left as a detail to a body constituted as is the one proposed, representing the very highest elements of the

Fig. 1. Case I.

Fig 2. Case I.

Fig. 3. Case II. (Dr. Walker's photograph.)

Fig. 4. Case II. (Dr. Walker's photograph.)

Fig. 5. Case III.

Fig 6. Case IV.

Fig. 7. Case V.

Fig 8. Case VI.

Fig. 9. Case VII.

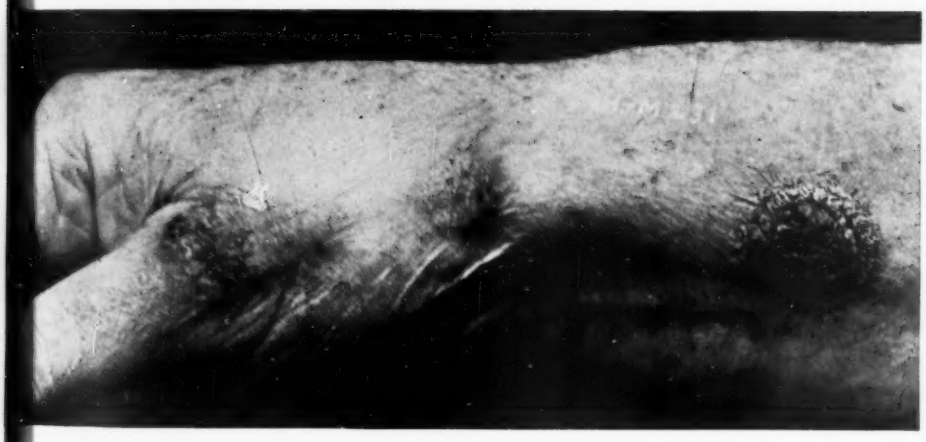


Fig. 10. Case VIII.

Fig. 11. Case IX.

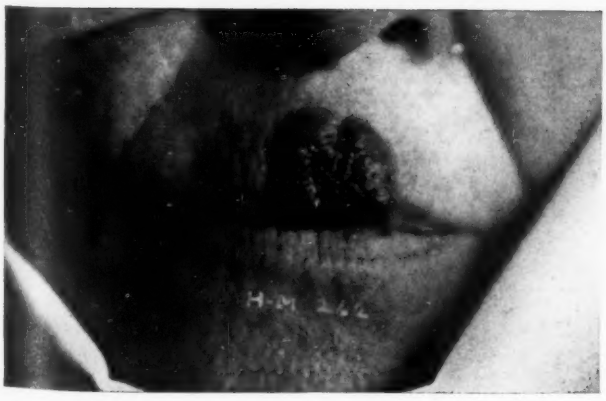


Fig. 12. Case X.

Fig 13. Case X.

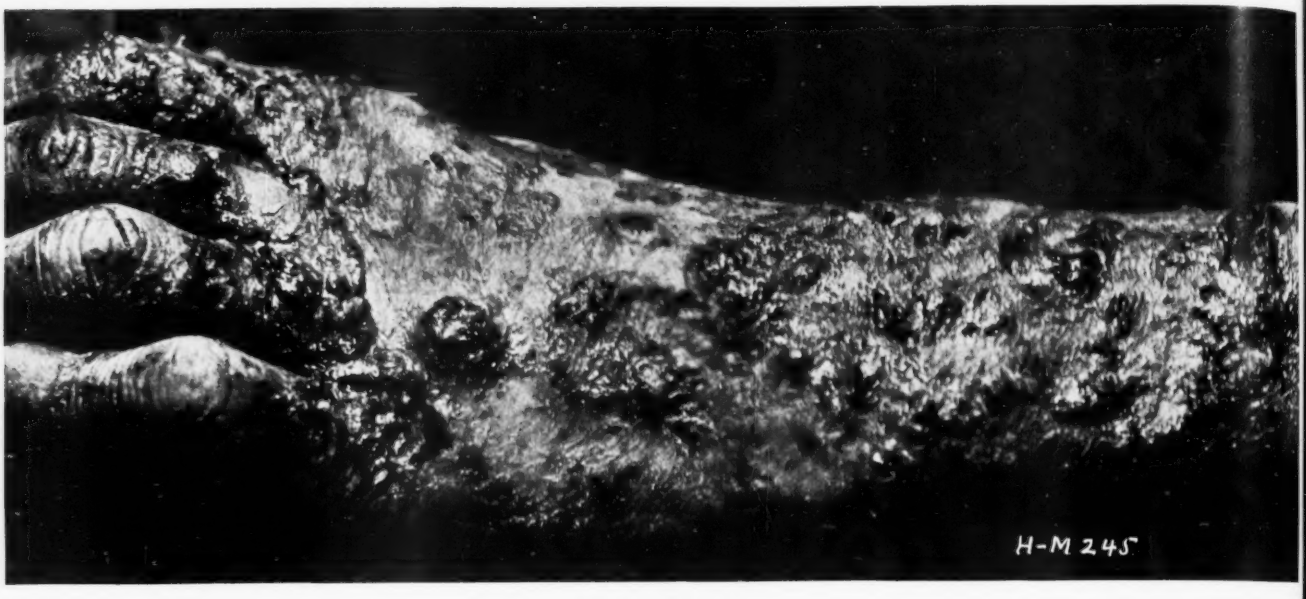


Fig. 14. Case XI.

Fig. 15. Case XII. (From Professor Senn's Clinic.)

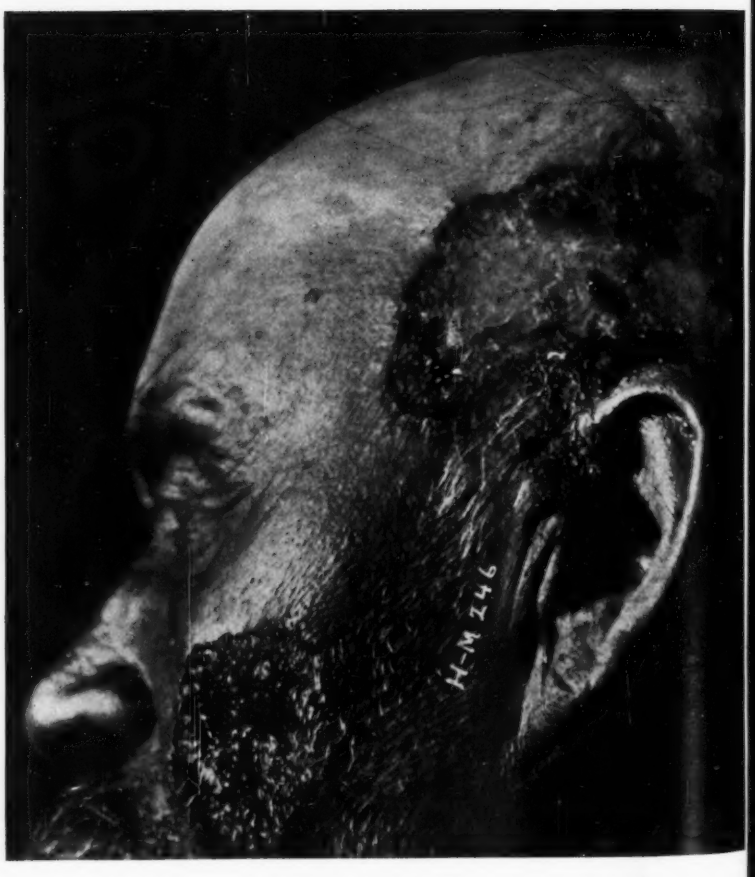


Fig. 16. Case XIII.

Figure 17.

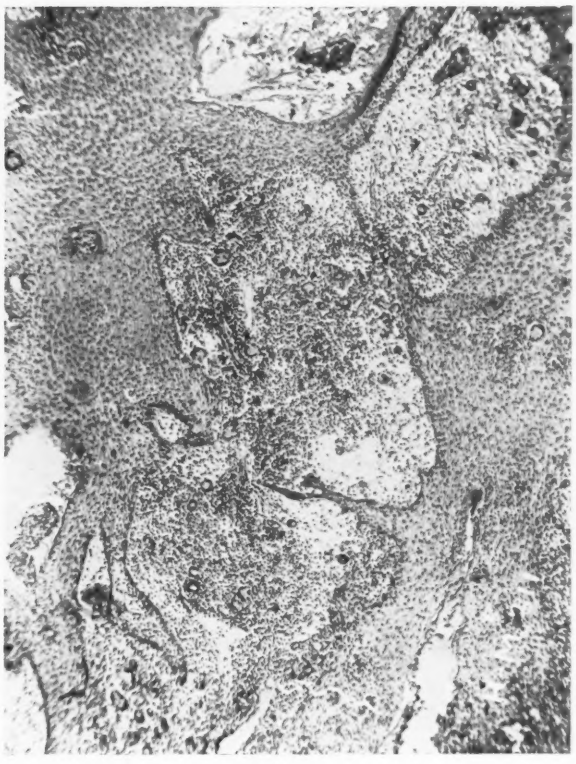


Figure 18.

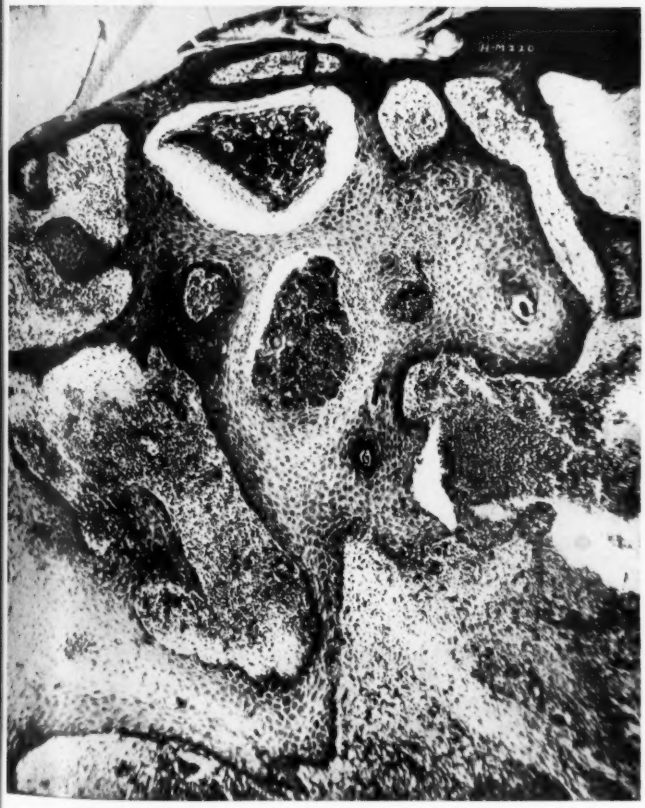


Figure 19.

Figure 20.

Sections, under low power, from Cases III, II, IV and I, showing characteristic histological structure of the lesions. The epithelial hyperplasia and the miliary abscesses are conspicuous. Fig. 18 shows an unusual development of giant-cells; at (*a*) is a giant-cell surrounded by epithelium.

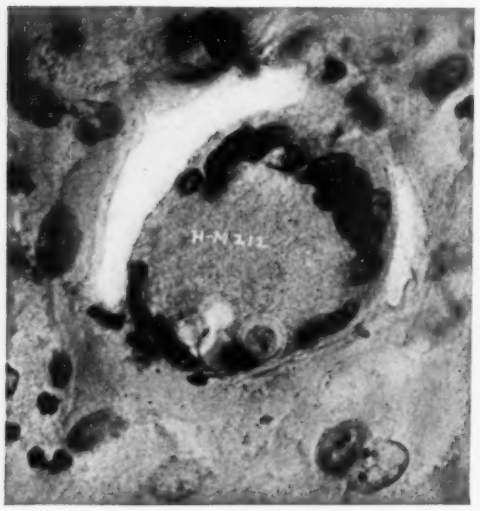


Figure 21.

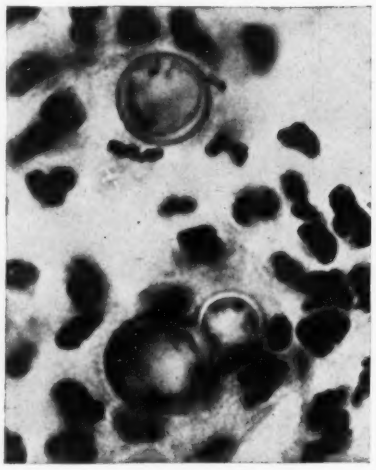


Figure 22.

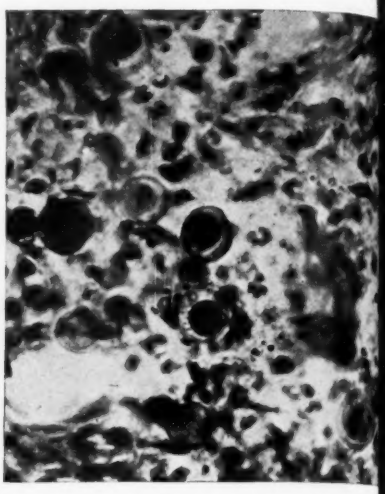


Figure 23.

Figure 24.

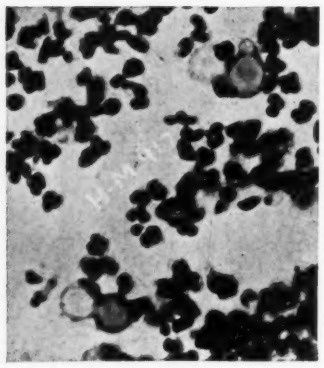


Figure 25.

Figure 26.

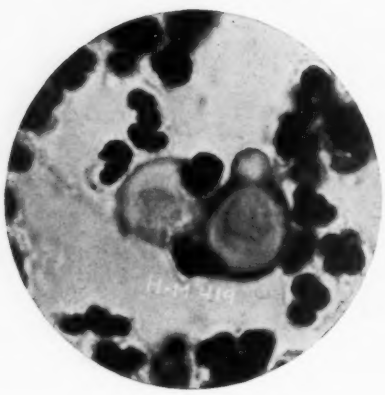


Figure 27.

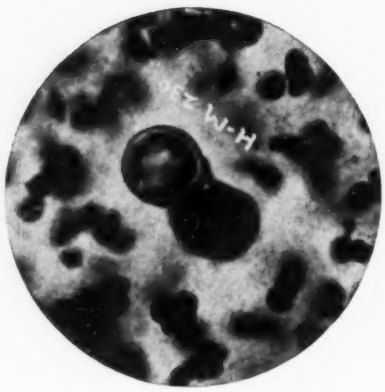


Figure 28.

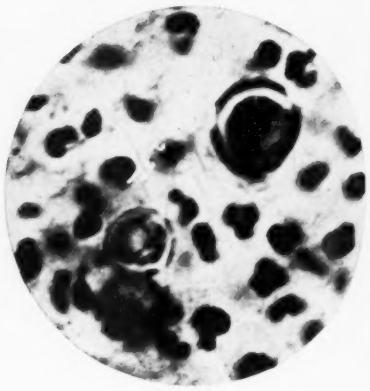


Figure 29.

Sections from Cases II (Figs. 21 to 24), I (Figs. 25 and 27), IV (Fig. 26), III (Fig. 28), and VIII (Fig. 29), showing organisms in tissue, including several budding forms. Fig. 21.—Giant-cell seen at (*a*) in Fig. 18; it contains a group of organisms. Fig. 23.—Organisms in lung tissue (Dr. Walker's section). Fig. 24.—Organism in giant-cell. Fig. 28.—Budding organism, with vacuole (?). Magnification: Figs. 21, 23 and 25, X 600; all others, X 1200.

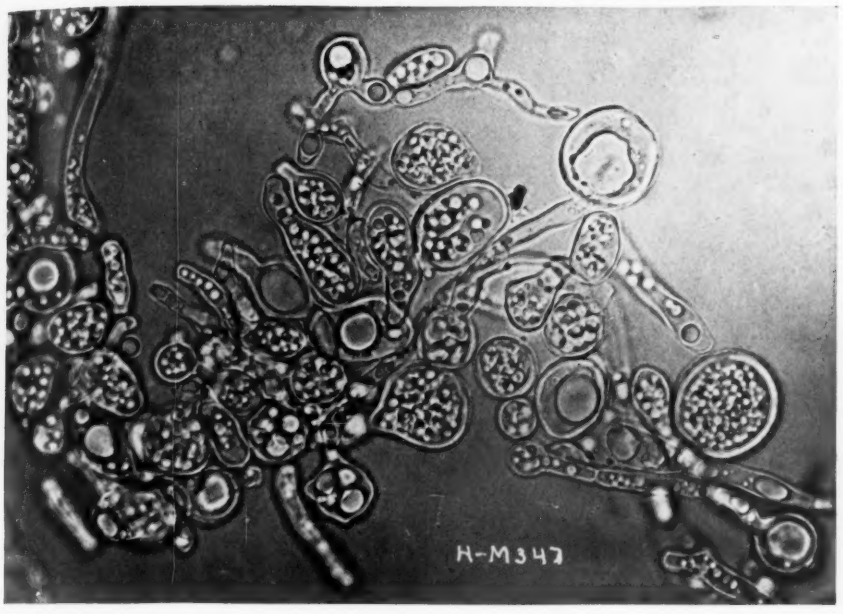


Figure 30.

Figure 31.

Figure 32.

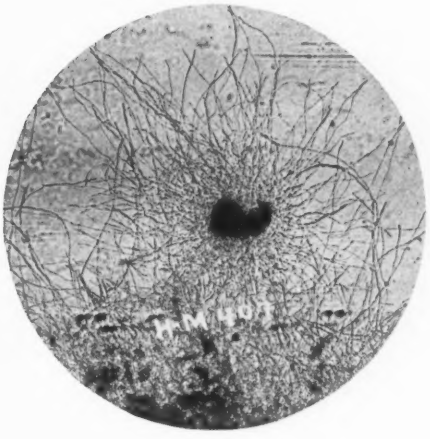


Figure 33.

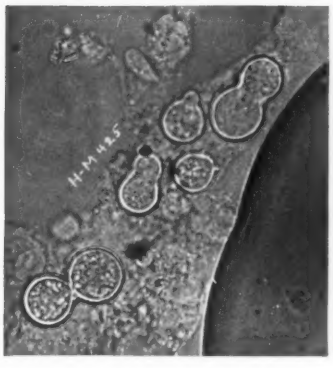


Figure 34.

Figs. 30 (X 1200) and 32 are described in detail in the text. Fig. 31 (X 1200).—Moist coverslip preparation from original culture on maltose agar. Other forms of this organism are seen in Figs. 35 to 39. Fig. 33 (X 120).—Hanging-drop from tube 7, Fig. 32. Fig. 34.—Organisms in fresh tissue, showing four stages of the budding process (a large air-bubble occupies the field to the right). Figs. 30 to 34 are from unstained preparations.

Figure 35.

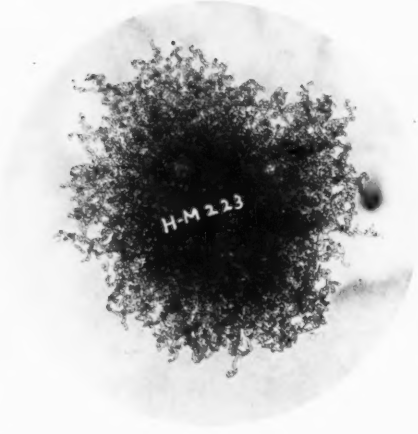


Figure 36.

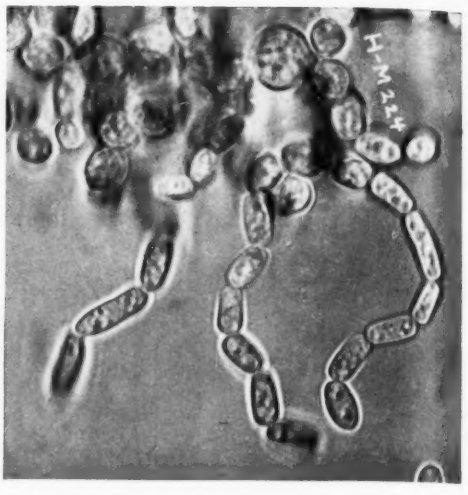


Figure 37.

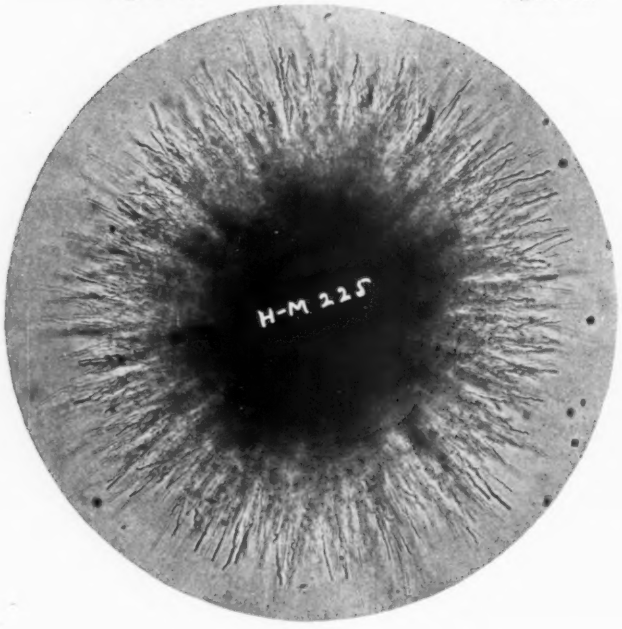


Figure 38.

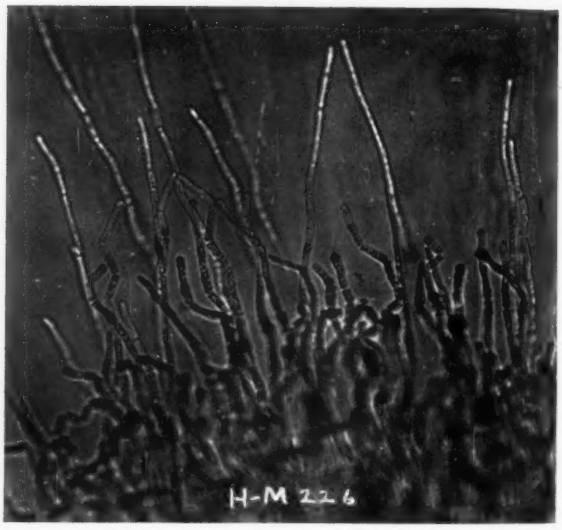


Figure 39.

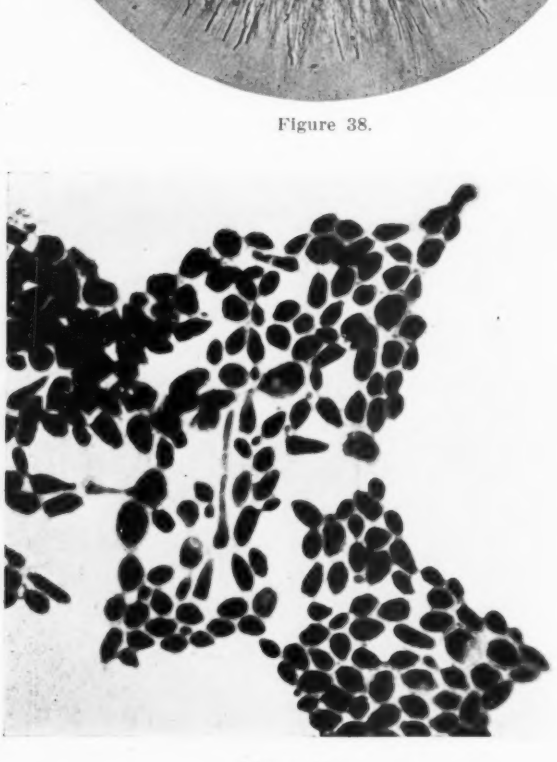


Figure 40.

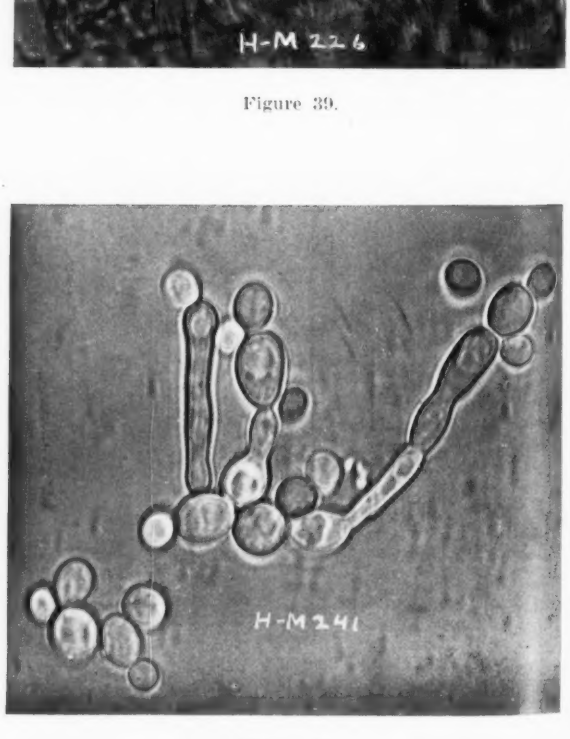


Figure 41.

Fig. 35.—Colony on glucose agar, Case IV. Fig. 36 (X 75).—Hanging-drop, Case IV. Fig. 37 (X 1200).—Higher magnification of a portion of same. Fig. 38 (X 60).—Colony from plate culture, Case IV. Fig. 39 (X 320).—Higher magnification of part of same. Fig. 40 (X 1200).—Smear from a culture of Case V, stained with methylene blue. Fig 41.—Hanging drop from Case V. All but Fig. 40 from unstained specimens.

profession and fully commanding its confidence. Doctor Rodman does not notice one possible demand, that of sectarian representation on the board, but we believe that with assured perfect fairness and restriction of the examination to essentials, without lessening its thoroughness, this demand will be practically silenced. It is believed that with the present trend of tendency in medical matters, and with the experience of the past, even the better class of the medical sectarians will seek the one national qualification.

Our Canadian confrères have just succeeded in obtaining a board, giving what will doubtless be a universal qualification for their territory, under constitutional difficulties almost identical with those we meet on this side of the line. In their case the board is made up of representatives of the provinces, and no province is represented on it that does not legally endorse its qualifications. What they can do in one way is equally practicable for us in another, and it is to be hoped that the movement will soon be well under way. It is a matter that demands the early attention of the Association through its delegated body, and also of the meeting of representatives of the state boards, which is to be held at about the same time. A co-operative action on the part of both will go far to put the project on a sound basis and insure its early success.

THE INTERCOMMUNICABILITY OF HUMAN AND BOVINE TUBERCULOSIS.

There is at the present day no difference of opinion as to the communicability of tuberculosis from one human being to another, or from an animal of a given species to another animal of the same species. Some doubt has been raised, however, as to the identity of the tubercle bacillus of human beings and that of lower animals. The question is of the utmost importance, as upon its decision must depend the measures to be instituted in the movement that has been set in action over the entire civilized world looking to the suppression of the great white plague, or, at least, the restriction of its ravages.

The startling announcement of Robert Koch at the British Congress for Tuberculosis to the effect that human and bovine tuberculosis are independent and non-communicable—a statement in direct contradiction of the view previously expressed by him—is still fresh in mind, but despite the acknowledged authority of this distinguished bacteriologist, not alone was his statement not accepted, but it was in fact at once taken issue with. Evidence was presented indicating the falsity of the new position and the machinery was immediately set in operation to secure data to establish with accuracy its correctness or incorrectness. One of those whose voices were raised against the revolutionary doctrine was an American—Dr. M. P. Ravenel, Bacteriologist to the State Live-stock Sanitary Board of Pennsylvania—who had facts at hand and presented in one of the sections of the congress a communication, demonstrating beyond peradventure of doubt the intercommunicability of the disease between man and cattle. Dr. Ravenel has continued his studies in the same direction and some of his results are detailed in a paper read recently before the Pathological Society of Philadelphia.[1] After citing evidence from many sources as to the transmissibility of tuberculosis to animals of the bovine species by means of intestinal, intravenous, subcutaneous, intraperitoneal, intraocular, intrameningeal inoculation of tuberculous material from human beings, he details observations of a similar and corroborative nature made in the laboratory of the State Live-stock Sanitary Board of Pennsylvania. The evidence thus seems indisputable that tuberculosis is transmissible from human beings to cattle. That as to the transmisson of the disease from cattle to man can, in the nature of things, be only indirect, but such as exists points indubitably in that direction.

It is not denied that there are differences between the lesions of tuberculosis as seen in human beings and in cattle, but these cannot be considered essential. There are also certain morphologic and cultural differences, as well as differences in virulence, between the respective tubercle bacilli, but these are not constant and invariable.

From the mesenteric gland of a child dead of tuberculous meningitis a culture of tubercle bacilli was obtained that exhibited the most intense pathogenic virulence for cattle. The micro-organisms in this case are believed to be bovine tubercle bacilli because the infection of the child was primarily intestinal, because of the morphologic and cultural correspondence of the organisms to the bovine type, and because of their great pathogenic activity for cattle. Cultures from the mesenteric glands of a second child also dead of tuberculous meningitis likewise exhibited a virulence in excess of that ordinarily observed in cultures of human tubercle bacilli, though less than that described in the first instance.

There are on record a not inconsiderable number of cases in which accidental infection of human beings with bovine tubercle bacilli has taken place. Certain difficulties surround the demonstration that tuberculous infection takes place in human beings through the ingestion of tuberculous milk and meat, inasmuch as the invading micro-organisms may pass through the intestinal wall, the mesenteric glands, the thoracic duct and the venous circulation, to be deposited in the lungs, as has been shown experimentally. At the same time intestinal and mesenteric tuberculosis are far from rare in children, and they may fairly be attributed to infection through the food.

It is probable that we have in the past had an exaggerated notion of the frequency with which tuberculosis in human beings is acquired from cattle, but, after all due allowances are made, the fact remains that the danger from this source is a real one, and so far

1. Univ. of Penna. Medical Bulletin, May, 1902, p. 66.

as possible steps should be taken to reduce it to a minimum. Accordingly care should be still taken not only to prevent dissemination of the discharges from cases of tuberculosis in human beings, but also to limit the disease in cattle and other animals and to prohibit the use of milk and meat from tuberculous animals.

In the opinion of Ravenel, which seems to be amply justified by the available evidence, the various types of tubercle bacilli have sprung from a common stock, and they have acquired their racial peculiarities by residence in different animals by reason of differences in nutrition, temperature and resistance. In each instance the tubercle bacillus acquires properties that best enable it to maintain its existence in the particular host. The conclusion therefore seems justified that human and bovine tuberculosis are but slightly different manifestations of the same disease and are thus intercommunicable.

THE PANCREAS IN DIABETES.

The interest in the relation of diabetes to lesions in the pancreas has been much increased by the recent demonstration of more or less definite changes in the so-called islands of Langerhans in many cases of this disease. The final explanation of diabetes must be sought by chemical methods, and the recent work of Herter and others on adrenalin diabetes, to which reference has been made in these columns from time to time, is extremely suggestive and important. In the meantime the finer morphologic changes that there is good reason to believe may constitute the anatomic substratum of spontaneous pancreatic diabetes will appeal to many as an interesting field of research. No doubt many facts of value will accumulate in time from investigations in this line.

At present interest centers especially in the islands of Langerhans, these peculiar glomerulus-like, minute structures that have the same general cellular make-up in the majority of mammals and birds, but which seem to have escaped recognition until within the last three or four years. According to Ssobolew,[1] who was among the very first to pay any attention to the Langerhans islands, they are best developed in small animals with intense metabolism, such as the guinea-pig and the pigeon. The largest islands are found in man and in guinea-pigs. They are prominent early in life and in the human fetus they are present at the sixth month. In no case have the islands any ducts, hence it has been customary to speak of them as ductless islands with an internal secretion as distinguished from the more familiar glandular secretions that are poured out upon any mucous and cutaneous secretions. Ssobolew reasoned that if the islands are anatomically and functionally distinct from the ordinary digestive apparatus of the pancreas, then they would not be affected by ligature of the pancreatic ducts, which would throw the digestive functions out of play and thus lead to atrophy of the secreting cells. His results obtained after ligature of the pancreatic duct in rabbits, cats and dogs confirmed this conception, because while the digestive structures disappeared the islands of Langerhans persisted practically unchanged and diabetes did not appear. Ssobolew assumes that the islands survive after ligature of the duct because they continue their function under the influence of "trophic influences," their metabolic activities not being disturbed by the retention of the pancreatic digestive juice. Ssobolew also finds that in transplantation of the pancreas, Langerhans' islands are the most persistent, and as long as they are intact diabetes does not develop. And in atrophy of the pancreas the islands remain longer than the digestive part of the gland, thus again indicating that they are, in a measure at least, independent of the main mass of the pancreatic tissues. In fifteen cases of diabetes, Ssobolew found more or less well-marked changes in the Langerhans islands in practically all the cases, and he points out that in diabetes they appear to be the least resistant parts of the pancreas. Unfortunately Ssobolew, in his review of the literature on the changes in the pancreas in diabetes, omits entirely references to the American literature. Had he not done so, but studied American articles as thoroughly as those in other languages, he would have found definite mention of the islands in more than four of 405 cases of diabetes which he cites as showing the neglect of careful study of these interesting areas.

The anatomic isolation of the islands of Langerhans by ligature of the pancreatic duct and the absence of diabetes under these circumstances certainly point to them as the anatomic substratum of the sugar-splitting functions of the pancreas. This is further supported by the changes that are now being described in the islands in cases of human diabetes. And it may not be too far-fetched to suggest that eventually some form of organotheraphy of diabetes may develop as the result of experienced and anatomic investigations of this kind.

1. Virchow's Archiv, last issue.

THE HYSTERICAL SAN FRANCISCO PRESS.

A California court has decided that the old board of health of San Francisco can not be ousted except by quo warranto proceedings, thus annulling the Mayor's removal. San Francisco and California are to be congratulated that this decision leaves those in office in whom the rest of the country can have some confidence. The San Francisco papers, however, are still denying that there has ever been an instance of plague in that city and hysterically howling at the decision. One of them calls it a "deplorable hair-splitting decision," and repeats the old charge of the injection of dead Chinamen with plague cultures, and dilates on the subject generally as if the respectable physicians comprising the board, the officials of the Marine-Hospital Service, the U. S. Government Commission, and, in short, the medical profession of the state and country were allied with the rival ports in a conspiracy against the commercial interests of San Francisco. It is not easy to reconcile

this course with ordinary common sense, to say nothing of common honesty and decency. It is altogether beyond rational explanation why the newspapers of San Francisco can not take a sensible course in regard to the plague cases which undoubtedly have occurred in that city. The world knows the facts, that is, it knows that plague cases have occurred, and frantic denials are not going to change the facts. There is a danger, however, that protesting too much may increase suspicion and lead people to think that worse remains behind; the course of the Governor and Mayor has just this tendency. The correct way would be to admit the facts, which in themselves are not, so far, very formidable, encourage open and free investigation and generally act so as to convince the world that there is nothing held back and that the authorities are intelligently alive to the situation and its needs. Let the ostrich policy be continued, however, and a plague case get away from San Francisco and develop elsewhere and there would then be serious trouble for them, entirely beyond their control and power of concealment. There should be enough sensible business men in San Francisco to have some inhibitory control over the performances of the mayor and the utterances of the local press. It seems hardly conceivable that the sober, sensible element in the community should be so impotent in this respect, as it must be if matters are to continue as they have been in the past. A word to the wise is sufficient. It is hard to say how many must be addressed to be effective with the San Francisco Mayor and his subservient organs of the press.

A MATTER REQUIRING ATTENTION.

Our Washington correspondent sends us the following telegram, which is of interest to the profession, and will, we hope, be duly considered by every individual member:

WASHINGTON, D. C., June 3, 1902.

The bill retiring Surgeon-General Sternberg with the rank of major-general, which passed the Senate unanimously and was favorably reported by the entire House Committee on Military Affairs, was defeated in the House yesterday afternoon. Mr. Cannon of Illinois and Mr. Underwood of Alabama were very active in their opposition. Mr. Underwood of Alabama practically sneered at and insulted on the floor of the House of Representatives every member of the American Medical Association and of the state societies. His remarks and those of Mr. Cannon and others will be incorporated in the report of the Committee on National Legislation, and will be specially called to the attention of the American Medical Association at its meeting at Saratoga Springs, N. Y., June 10. The *Congressional Record* of June 2, pages 6620 to 6625, containing the full debate in the House of Representatives on the bill retiring Surgeon-General Sternberg should be read by the entire medical profession.

The medical profession in Illinois and Alabama, as well as in other states whose representatives voted against the bill, is strong enough to show its power and make it respected even by politicians. Forbearance to a certain extent is a Christian duty, but we have been here smitten enough on both cheeks to make it no longer a virtue. When a congressman goes out of his way to insult an honorable profession, collectively and individually, he is unfit for his position, and it is our duty as citizens to use all our influence against him. Further comment is needless.

HOSPITAL DEADBEATS.

A prominent surgeon in Brooklyn has started a good work in instituting legal proceedings for the collection of certain bills from hospital patients of his who were able but unwilling to pay for his services. Their contention that as hospital patients they were entitled to his service gratis is a poor defense morally, and we trust it will also be found such legally. Physicians give their services to hospitals in the treatment of the poor, but that does not follow that they also give them to the undeserving rich. We are not aware that the question here raised has ever been passed on by a court, but there is no question as to the abstract justice of the Brooklyn surgeon's demand. With the multiplication of hospitals, which is the order of the day, the matter is an important one, and we hope and trust that he may win his suit. If it should be decided that only charity medical practice is permitted in public hospitals, or that it is always implied in such institutions except where it is otherwise expressly stipulated, then let the hospitals use a better discrimination in their admissions and hospital surgeons and physicians make this a prerequisite for their services. The medical profession is not to be always considered a "soft snap" for well-to-do impostors. There has been enough of that in the past, is altogether too much now, and what there is to be in the future is a matter for us to seriously consider. The surgeon in question is doing a service to his professional brethren in thus instituting his suits. The results will be serviceable as a future guide to the profession, and, if he succeeds, a valuable legal precedent.

RELATION OF PHYSICIANS TO EMBALMING.

The proper embalming of a dead body requires considerable technical skill and judgment, and a large majority of undertakers are entirely incapable of performing it in a satisfactory manner. J. G. Garson[1] considers that embalming should not be relegated to the undertaker, but should always receive the direct attention of the medical attendant of the deceased. The injection of an antiseptic solution into the large serous cavities of the body may undoubtedly have some effect in reducing the rapidity of decomposition, but it does not compare in efficiency with the introduction of the antiseptic solution directly into the blood vessels. By this latter means the various parts of the entire body are most universally reached by the antiseptic. The proper injection of a body through the blood vessels requires no little care in regulating the pressure to be brought upon the vessels. The perfunctory embalming, which is usually carried out as soon after death as possible by undertakers, has for its chief result the ability of the operator to add another item to his bill. If consent for an autopsy has been obtained some time after death, the previous introduction of corroding and discoloring solutions has frequently prevented any information of value being obtained at the examination. In medicolegal cases much damage has resulted from early

1. Lancet, May 10, 1902, 1301.

embalming. Whether the embalming is actually done by the physician or not, no body should be embalmed until his consent has been obtained. Garson prefers to make the injection into the abdominal aorta just below the umbilicus. In many cases a physician could obtain useful information through a small abdominal incision made in the process of embalming, and when no systematic autopsy could be obtained this might be of great value. It would seem to be very desirable for the attending physician to be present at the operation even if not actually performing it, and to make use of the opportunity for observing the condition of the principal viscera through the incision made for purposes of embalming the body.

PERMANENT TENURE OF OFFICE FOR HEALTH OFFICERS.

In the discussion of "some problems in municipal sanitation from an executive standpoint," W. C. Woodward,[1] Health Officer of the District of Columbia, says that the difficulty in securing competent officers in the contagious disease service and competent chemists and bacteriologists to take charge of the laboratories arises chiefly from the uncertain tenure of office and the inadequacy of compensation. The British Medical Association has been instrumental in securing the introduction in the House of Commons of a bill which seeks to amend the law relating to the tenure of office of medical officers of health and sanitary inspectors. In England, at present, the medical officer of health is appointed for one, three or five years, and the sanitary inspector for one year. The bill provides that properly educated and qualified men shall be appointed to these offices and shall be secure in their positions as long as they perform their services satisfactorily. The duties of officers of health are indicated by the teachings of modern science and can not vary with the whims of each new mayor or governor who happens to be elected to office. Matters of public sanitation have become so manifold that special education and experience are necessary for the proper administration of them. The public can only obtain the best service when those who look after the public health are secure in their positions as long as their duties are properly performed, and when they are relieved of the distracting necessity of keeping on the right side of politicians in order to retain their places. The treatment of medical health officers in one of our western cities at the hands of lay authorities, who claim to determine the absence of plague by their individual feelings and desires, is most deplorable, and has subjected the rest of the country to a most unnecessary danger. The absolute separation of all matters of public health and hygiene from changeable politics is much to be desired and is to be constantly sought by the medical profession.

THE MYASTHENIC SYMPTOM-COMPLEX.

There have been reported in recent years a small number of cases characterized by undue readiness of fatigue in certain groups of muscles, especially those supplied by the bulbar nerves, occurring in attacks, without alteration in sensibility, in nutrition and in reflex activity. The irritability of the affected muscles is, further, quickly exhausted by electric stimulation, constituting the myasthenic reaction. The nature of these cases is obscure and in the absence of more definite knowledge and of evidence of organic disease they have been thought to be of toxic origin. That they may be of varied pathology is suggested in a recent communication by Dr. Jeno Kollarits,[1] who reports two cases presenting typical symptoms of myasthenia, also a case of cerebellar tumor studied clinically, one of cerebellar tumor and sarcomatous infiltration of the spinal pia mater with postmortem examination, and one of exophthalmic goiter, in all of which the so-called myasthenic reaction was present. As a result of his observations he expresses the opinion that the myasthenic symptom-complex comprises various disorders, namely, familial affections characterized by attacks of weakness or paresis, although permanent symptoms may also be present; conditions developing in the sequence of febrile disorders or attended with fever—these are to be classed with polio-encephalo-myelitis; cerebral lesions; the incipiency of diseases the diagnosis of which can be made only after considerable observation. The absence of anatomic lesions, it is believed, is not sufficient to make a case one of myasthenia; nor does the development of muscular atrophy and of degenerative electric reactions exclude the possibility of myasthenia; while exhaustibility of the muscles and the exhaustion reaction have only limited diagnostic significance. The so-called myasthenic reaction of the muscles does not differ essentially from that which had previously been described as the fatigue reaction and which had been observed in cases of hemiplegia, progressive muscular atrophy and dystrophy, paralysis agitans, anterior polio-myelitis and Landry's paralysis. The myasthenic reaction has been recorded as being present, further, in cases of tabes dorsalis, cerebellar tumor, neurasthenia, traumatic hystero-neurasthenia, multiple sclerosis, and organic disease of the pons. As a substitute for both terms the designation "exhaustion reaction" is proposed.

DOMESTIC ANIMALS AND INFECTIOUS DISEASES OF MAN.

Although most of the infectious diseases which affect the lower animals are not transmissible to man, there are certain diseases to which both man and some domestic animals are susceptible and which may be directly transferred from such animals to the human subject. The probability that man may acquire tuberculosis by infection through milk which contains tubercle bacilli has been brought forward by sanitarians so prominently that the laity is now fully alive to the danger of using milk from tuberculous cows. Man also contracts glanders from horses, actinomycosis from cattle affected with lumpy-jaw, and hydrophobia from the bite of rabid dogs. People do not usually know that domestic animals may be dangerous as carriers of infections of other sorts. Cats and dogs have been known to be the means of carrying the infectious agents of diphtheria and scarlatina from one child to others. Beside acting as the simple vehicle for the infectious materials, there is some evidence in favor of the belief that cats may be affected with both these diseases and so become a source

1. Phila. Med. Jour., May 17, 1902, 889.

1. Deutsches Archiv für Klinische Medicin, B. 72, H. 2, p. 161.

of danger to the families in which they live. Plague is also said to occur in cats and they have been accused of spreading the infection in this disease. There has been much discussion over the etiology of ozena, and the most recent workers upon the subject appear to have shown that the bacteria formerly described as the exciting agents are not such. Perez[1] has described a bacillus which he believes to be the cause of ozena, and he has found it to be a common inhabitant of the nasal cavities of dogs. It is his belief that the dog is the source of the infection in man, and he found that several persons who were affected with the disease had played much with dogs. As prophylactic measures against ozena he advocates the prevention of too close contact with dogs, especially by children, and the avoiding of contact between healthy persons and those afflicted with the disease. The possible danger of infection with the specific agent of ozena through close contact with dogs, as when the animal is allowed to lick the face, is not the only reason why the affectionate demonstrations of dogs should be restricted. Echinococcus disease is probably acquired by close relationship between dogs and persons of unclean habits. When one considers the habits of the ordinary city dog, it is not difficult to imagine that it may carry about the ova of various intestinal worms and other infectious agents upon its nose, and readily deposit them upon the hands and face of people when occasion offers. People are to be warned of the danger of pets as carriers of infections, especially scarlatina and diphtheria, and sick domestic animals should always be looked upon with suspicion.

Medical News.

CALIFORNIA.

Van Slyck Dinner.—The medical men of Pasadena testified to their esteem for Dr. David B. Van Slyck by giving him a banquet on the occasion of his half century of medical life, at which a silver loving-cup was presented to him.

Hospital to be Built.—Within a few days ground will be broken at San Francisco for St. Mary's Help Hospital. At present only the foundation and one story will be built, as the funds subscribed will not warrant a further outlay. The ultimate intention, however, is to erect a building to cost $250,000.

Injunction in Force.—The San Francisco Board of Health removed by the Mayor because they held to the truth in the matter of the bubonic plague in San Francisco, will remain in office for a time, at least, as the injunction restraining the new appointees from interfering with the old board has been continued in force.

New Hospital in Berkeley.—A new sanitarium association has been incorporated by physicians and business men of Berkeley and Oakland. Dr. Samuel H. Buteau, Oakland, and Drs. Hubert N. Rowell, Charles F. Gladding and Edwin A. Kelley, Berkeley, are members of the board of directors. Immediate accommodation for twenty-five patients will be provided pending the erection of a new hospital.

COLORADO.

Gift to Sanitarium.—The Hon. Bellamy Storer, United States Minister to Spain, has given $2000 to the annex-building fund of Glockner Sanitarium, Colorado Springs.

Bellevue Hospital.—Bellevue Hospital Association, Colorado Springs, was incorporated, April 21, officers chosen, and Dr. James A. Hart elected advisory medical supervisor.

Gross Medical College, Denver, graduated a class of 22, two of whom were women, May 16. Rev. Frost Croft delivered the address and Chancellor Dr. Wm. Herman Buchtel conferred the degrees.

Cripple Creek Hospital Opened.—The new Teller County Hospital at Cripple Creek, erected at a cost of $21,000, was opened, May 13. Dr. Alexander C. Magruder, county physician, is in charge.

DISTRICT OF COLUMBIA.

Competitive Examination for Internes.—As a result of the examination for internes at the Emergency Hospital, Washington, the senior position was won by Dr. R. L. Sutton, Kansas City, Mo.; the junior, by Dr. A. J. Cashman of Washington, D. C. Eight applicants took part in the competition.

Johnston Memorial Hospital.—In recognition of the services rendered by the late Dr. William W. Johnston to the medical profession in general and to Columbian University Hospital in particular, the officials of that institution have decided to designate the new building, which has just been begun, the "Johnston Memorial Hospital."

Howard's Graduates.—The largest class ever graduated from Howard University, Washington, received diplomas at the thirty-fourth annual commencement of the institution, May 6. President Rankin conferred degrees on 27 students; Dr. John E. Brackett gave the charge to the class and Rev. Dr. Horder of London, England, made an address.

Medical Inspectors for Schools.—The draft of the substitute bill sent to the Senate District Committee by the District Commissioners relative to the appointment of medical inspectors for the public schools, reads as follows:

For eleven medical inspectors of public schools, to be appointed by the Board of Education of the District of Columbia, at $500 each, $5,500;

Provided, that said inspectors shall have had at least five years' experience in the practice of medicine in the District of Columbia, and shall only be appointed after a competitive examination.

ILLINOIS.

Corbyn Memorial Bed.—The directors of the Dr. Corbyn Memorial Society have decided to endow in perpetuity a free bed in Blessing Hospital, Quincy, at a cost of $4000.

Accident to Dr. Moore.—In a runaway accident near Dixon, May 20, Dr. Amos F. Moore was thrown from his buggy, sustaining a fracture of the left leg below the knee, and numerous cuts from contact with a barb-wire fence.

Pavilion for Alton Hospital.—Through the beneficence of a lady who does not care to have her name mentioned, work has already commenced on a large open-air pavilion to be erected on the north side of St. Joseph's Hospital, Alton.

Dr. McCord's Anniversary.—On the occasion of the birthday anniversary of Dr. T. Chester McCord, Paris, major and surgeon, Fourth Infantry, I. N. G., about 25 of his professional associates showed their appreciation of his sterling worth by giving him a reception.

Chicago.

Appropriation to Combat Smallpox.—Funds for the health department's fight on smallpox were voted by the council finance committee, the recommendation being made that $15,000 be appropriated. The department has been severely hampered for lack of funds, and Commissioner Reynolds recently asked for $50,000.

New Internes.—On June 2, nine new internes, Drs. P. Koehler, H. Snyder, J. Carr, C. E. Sears, W. G. Dunn, G. W. C. Parker, W. E. Engelbaugh, G. I. Barber and C. W. Howard, began their work at the County Hospital, relieving Drs. D. E. W. Wenstrand, J. F. Hultgen, W. R. Tyndale, W. R. Cubbins, I. McNeill, E. C. Reibel, R. F. Palmer, J. F. Howard, E. N. Nash, J. N. Axelson and A. Foeter, whose terms of service have expired.

Comparison of Mortality in Cities.—The Chicago mortality rate for the year 1901 was 13.65 per 1000 of the estimated midyear population, 1,758,025, and was 21 per cent. lower than the St. Louis rate, 25 per cent. lower than Philadelphia, 30 per cent. lower than Boston, and 35 per cent. lower than New York, even allowing these cities estimated populations based on much higher rates of increase than that claimed for Chicago.

County Hospital Items.—The quarantine placed on the children's ward a week ago because of diphtheria has been raised.——It is recommended that more nurses be employed in place of the convalescents who now serve as "day men" in each ward.——The officer-of-the-day advocates that hospitals be notified that the hospital does not admit chronic and incurable patients whose proper habitat is the county institution at Dunning.——The warden has appealed to the city for aid in caring

1 Annal. de l'Inst. Pasteur, May 25, 1901.

for contagious diseases, as the ward in the hospital is full to overflowing.

May Mortality.—There were 2128 deaths from all causes in May. This is a decrease of 144 over the previous month, April, but eighty-two in excess of the figures for May, 1901. Notwithstanding this excess, the rate per 1000 of population is substantially the same—1370 for May, 1901, and 1375 for May, 1902. In the first five months of the current year 11,223 deaths have been recorded, as against 10,293 in 1901, an excess of 9 per cent. in number and of 5.2 per cent. in proportion to population. More than one-half the excess thus far this year comes from the age group under 5 years, and of this the period between 1 and 5 years contributes 81 per cent. The acute respiratory diseases, bronchitis and pneumonia, have been especially rife and unusually fatal among children at these ages, and scarlet fever has also been excessively prevalent. Infants under 1 year of age contribute 9.5 per cent. of the excess, while the aged, those over 60 years, show a slight decline. The record of fifty suicides in the month is the highest yet made, and the number of deaths from Bright's disease, 134, is also unprecedented.

IOWA.

Donation to Mercy Hospital.—Mrs. Benjamin Thaw, formerly of Cedar Rapids, but now a resident of Pittsburg, Pa., has given $1000 towards the new Mercy Hospital in the former city.

Tribute to Dr. Middleton.—At the quarterly meeting of the Iowa and Illinois District Medical Society, the evening was devoted to memorials of its ex-president and long-time member, the late Dr. William D. Middleton of Davenport.

Dr. Braunlich Recovering.—Dr. H. U. Braunlich, Davenport, who for many weeks hovered between life and death suffering from septic poisoning, has at last been declared convalescent. His infection occurred at the same operation in which the late Dr. Middleton received the slight but fatal abrasion of his thumb.

MAINE.

Dr. Nathaniel T. Palmer, one of the leading citizens of Brunswick, and one of the founders of the Maine Medical Society, recently celebrated his eighty-fifth birthday.

Golden Wedding.—On May 11, Dr. and Mrs. Franklin B. Ferguson, Deer Isle, celebrated the fiftieth anniversary of their marriage. For forty-eight years Dr. Ferguson has practiced medicine in Deer Isle.

Sisters' Hospital Dedicated.—Bishop O'Connor of Portland recently dedicated the new Sisters' Hospital at Lewiston. The building has now accommodation for 75 patients, and its full capacity in case of necessity will be 200 beds.

Damages Awarded.—In the damage suit for $10,000 brought by the widow of Henry F. Ramsdell against Dr. James B. Grady, Eastport, on account of his alleged neglect of her husband, the jury awarded the plaintiff damages of $3000.

MARYLAND.

State Board of Pharmacy.—The governor has appointed the first State Board of Pharmacy Maryland has ever had, consisting of William C. Powell, Snow Hill; J. Webb Foster and David R. Millard, Baltimore; Charles B. Henkel, M.D., Annapolis, and William E. Turner, of Allegany County. The Board met for organization at Baltimore May 8, and elected Dr. Charles B. Henkel, president; W. C. Powell, treasurer, and D. R. Millard, secretary. The first examination was held May 28.

Baltimore.

Mortality.—For the week ending May 31, there were 168 deaths, consumption leading with 25.

Many Patients at Pasteur Institute.—There are now sixteen patients in the Pasteur Institute at the City Hospital, the largest number in the history of the institution.

The Commencement of the Woman's Medical College.—This commencement was held May 30, there being four graduates. Hon. George Savage, chief judge of the Orphans' Court, delivered the oration.

The Johns Hopkins Endowment.—About $120,000 is still needed to make up the million-dollar endowment of the Johns Hopkins University, but the committee of 70 is confident of raising the entire sum by July 1.

The Magness Matter.—A dispatch from Parkersburg says that when the case of Dr. Thomas H. Magness of Baltimore, who was indicted on the charge of impersonating a medical student, David R. Shepler, and taking the medical examination of West Virginia in his name, was called on May 29, Dr. Magness was not present and default of his bond of $500 was entered.

Personal.—Dr. L. McLane Tiffany has resigned the chair of surgery in the University of Maryland and has been elected emeritus professor of the same branch.——Dr. A. Aldridge Matthews has been appointed superintendent of the University of Maryland Hospital, vice Dr. George H. Stewart, resigned. ——Dr. William Osler has returned from Atlantic City and resumed his professorial duties.——Dr. Herbert Harlan, professor of ophthalmology and Dr. Francis M. Chisolm, associate professor of the same branch in the Woman's Medical College, have resigned.——Dr. Joseph Clement Clark, professor of psychiatry in the same institution, has been elected to the same chair in the Baltimore Medical College.

MASSACHUSETTS.

Newton Hospital Additions.—Two additions to the Newton Hospital were formally opened May 15—the new north pavilion of the contagious ward and the new Thayer ward for men.

Chiropodist Fined.—Edward E. Willard, a chiropodist of North Adams, was recently found guilty of the illegal practice of medicine and was fined $100. As he was unable to pay the fine he is now serving a sentence of three months in jail.

Appropriation for State Sanatorium for Tuberculosis.—On May 22, after a hard fight, Senator Fitzgerald obtained the passage of a bill appropriating $150,000 for an additional building at the Sanatorium for Consumptives at Rutland. On account of lack of accommodations, 484 applicants were refused admission to the sanatorium last year.

Cooley-Dickinson Hospital.—At the annual meeting of the trustees of this hospital, at Northampton, Dr. Christopher Seymour was reëlected president of the board. The following staff was appointed for the year: Medical—Drs. James M. Fay, George D. Thayer, John S. Hitchcock and Arthur G. Minshall. Surgical—Drs. Alfred H. Hoadley, James C. Fahey, Edward W. Brown and H. D. Perry. Oculist—Dr. Clarence R. Gardner, and consulting bacteriologist, Dr. Herbert C. Emerson, Springfield.

OHIO.

Cincinnati.

City Hospital Officers.—At the May meeting of the staff of the Cincinnati Hospital Dr. S. A. Fackler was elected president for the ensuing year; Dr. B. K. Rachford, vice-president; Dr. Arch. I. Carson, secretary; Dr. P. S. Conner, librarian.

Society of Internes Meet.—Dr. J. C. Oliver has been elected president of the Society of Internes of the Cincinnati Hospital. Nearly one hundred members attended the annual banquet held at the Phoenix Club the evening of May 17.

Miami Medical College Changes.—The faculty of the Miami Medical College announces the following additional changes in their personnel for the session of 1902-3: Dr. J. C. Oliver, dean and professor of operative surgery; Dr. C. E. Caldwell, professor of orthopedic surgery; Dr. Magnus A. Tate, lecturer on embryology; Dr. M. L. Heidingsfeld, clinical lecturer of dermatology and venereal diseases.

Personal.—Dr. Nora Crotty, recent graduate of the Cincinnati College of Medicine and Surgery, has left for Europe to take post-graduate studies in Vienna.——Dr. P. S. Conner, Jr., has been elected alternate interne to the Good Samaritan Hospital.

PENNSYLVANIA.

Philadelphia.

The Rush Hospital for the Treatment of Consumption and Allied Diseases has opened a country branch at Malvern.

Club House for Medics.—The Intercollegiate Committee of the Y. M. C. A. proposes to provide a clubhouse for the students of the medical and other professional colleges. The new clubhouse will be centrally located, will furnish a home for a few students and restaurant privileges for many. It will serve as a rendezvous for students and will have reading rooms, parlors and all other conveniences of the well-appointed clubhouse.

Woman's Medical College Faculty Changes.—Dr. Anna E. Broomall, because of advanced age and the pressure of private practice, has resigned from the head of the department of obstetrics in the Woman's Medical College. Dr. Broomall has occupied the chair of obstetrics since 1878. Dr. Ella B. Everitt, resident physician of the hospital, has been elected to the chair of gynecology, made vacant by the resignation of Dr. Hannah T. Croasdale.

Jewish Hospital Additions.—In the presence of a great throng, June 1, cornerstones of the Loeb Operating Building and of the Guggenheim Private Hospital, additions to the Jewish Hospital, were laid. Announcement was made of the donation of a sum not to exceed $20,000 by Mrs. Sarah Eisner of Philadelphia, for erecting and equipping the Eisner Building for Nurses.

Jefferson Commencement.—The seventy-seventh annual commencement of the Jefferson Medical College occurred, May 29. One hundred and forty were graduated, 73 of whom were from Pennsylvania. Twenty-four prizes were awarded. The honorary degree of doctor of science was conferred upon Dr. Charles Finlay, Havana, Cuba, an alumnus, in recognition of his contributions to the science of medicine, with reference to the causation of yellow fever. A masterly address by the Hon. Charles Emory Smith completed the exercises.

GENERAL.

Fourth of July Tetanus Coming.—Physicians have begun to warn the public through the newspapers of the outbreak of tetanus that each year follows the use of the toy pistol by the small boy in his annual jubilations.

Physicians Wanted for Philippines.—The Civil Service Boards will hold examinations at Washington, D. C., San Francisco and other cities, June 17 and 18, for positions in the Army Medical Service in the Philippines. Applicants may address the U. S. Civil Service Commission, Washington, D. C.

Health of Havana, Cuba.—On May 9, 1902, Major W. C. Gorgas, surgeon, U. S. Army, chief sanitary officer of the City of Havana, submitted his report for April, 1902, as representing the sanitary conditions of the city as it passed out of the hands of the military government. In April, 1902, there were 199 deaths, equal to an annual rate of 21.77. This rate is an improvement on that of any previous April. The total number of deaths for the year 1898 was 21,252, giving a death rate of 91.53; for 1899 the total number of deaths was 8153, a rate of 33.67; for 1900, 6102 deaths, a rate of 24.40; for 1901, 5720, a rate of 22.11. For the first four months of 1902, there have been 1896 deaths, which would give for the year 5688 deaths, a rate of 20.68. This indicates very forcibly the steadily improving sanitary conditions. The streets in every direction are kept in beautiful order by the Engineer Department; but the work which the Sanitary Department has urged forward more particularly is the cleaning of the interior of the houses. The constant inspections and fines, where necessary, carried on for the past three years, have caused people generally to keep their yards and houses clean. Permanent conditions have not changed; every house in Havana still has a cesspool, located somewhere on its premises, and it has not been the policy of the department to interfere with these conditions until the sewer system has been put in. Indeed, it would be impossible to do away with the cess-pool until the city is properly sewered. But such cleanliness as can be brought about by sweeping, washing and manual labor, is general. No case of yellow fever occurred during the month; the last case occurred in September, 1901. Only one case of smallpox was reported, the first since July, 1900, and this was a case which developed three days after the arrival of the patient from New York. Fortunately, it was discovered early and was at once sent to Las Animas Hospital for treatment. The amount of work being done for the destruction of mosquitoes is undiminished, and this has had a great effect in decreasing malaria. For the year 1900, the year previous to mosquito work, there were 344 deaths from this disease; during the year 1901, the first year of mosquito work, there were 151 deaths; for the first four months of the present year, 26 deaths.

Smallpox.

Indiana: The chief scenes of interest the past week in connection with smallpox have been in Indiana and Kentucky. The quarantine of the latter state against the former has been suspended and will probably not be resumed, owing to the agreement of Indiana to co-operate in measures to restrict the disease.

Wisconsin: Racine's pesthouse is full and the disease is spreading. There are 14 new cases reported. The public library has been closed indefinitely to prevent contagion by books.

CANADA.

Complaints Re Quarantine at Grosse Isle.—The second saloon passengers arriving by the Allan Line R. M. S. *Ionian*, have entered a complaint to the Department of Agriculture at Ottawa regarding the treatment received by them owing to having been quarantined, on account of smallpox on board, when landed, in sheds which they state are unfit for human habitation.

Montreal Foundling Hospital.—The report of the medical superintendent of the Montreal Foundling Hospital for the past official year shows that there were 32 babies in the institution May 15, 1901, and that there had since been admitted 159, making a total of 191 for the year, an increase of 22 over the previous year. The receipts for the year amounted to $6538; the expenditures, $4779.

The Health of Montreal.—The hygienic committee of Montreal has just had prepared some interesting vital statistics for that city. There were 6990 vaccinations reported in 1900, only 48 of which were performed by the family physician, the balance being performed by the public vaccinators. Of this number 2094 were primary vaccinations, the balance being re-vaccinations. Contagious diseases numbered 2802, divided as follows: Diphtheria, 523; scarlet fever, 1107; typhoid, 647; smallpox, 24. The births numbered 9892; marriages 2240. Still births and deaths among illegitimate and prematurely-born children, 742; premature births, legitimates, 300; premature births, illegitimates, 31; still births, legitimates, 322; still births, illegitimates, 44. Among the French-Canadians the deaths numbered 5287, of which number 3299 were under five years of age. Among the other Catholics, 444 were under five years of age. Among the Protestants, the number was 370.

An Insurance Case.—Duncombe vs. the Mutual Life Insurance Company of New York was the title of an action brought by Mrs. Duncombe of St. Thomas, Ont., widow of the late Dr. Truman Duncombe, for $5000, payment of the insurance having been refused on the ground of fraud. Dr. Duncombe, forty years of age, was an examiner for the above-mentioned company and held a number of policies in said company. On July 11, 1901, he made application for $5000 on his own life. He made out the examination sheet himself and had a brother practitioner sign it who was not an examiner for the said company, but who had previously passed Dr. Duncombe for another company. Dr. Duncombe died suddenly Oct. 2, 1901, and, although the company paid all the other claims, they refused to pay this latter one for the reason above mentioned; hence the suit to recover. It was shown at the trial that Dr. Duncombe was not examined by his confrère on the date mentioned in the examination form. Medical experts considered that Dr. Duncombe had died of aneurism, although there was no autopsy. The undertaker who prepared the body noticed a swelling three-quarters of an inch to the left of the lower part of the sternum. He raised a fold of the abdominal wall, half-way between the sternum and umbilicus, and thrust the point of a long trocar through it, passed it eight inches upwards and toward the left arm-pit and drew off one and three-quarter pints of dark red blood, which was clear and clotted in the bottle. As this came away the swelling disappeared. The case was dismissed against the company with costs.

Personals.—Dr. Edgar has resigned from the superintendency of the Hamilton (Ont.) General Hospital.——Dr. Ernest Hall, Victoria, B. C., is supervising the erection of a sanitarium for consumptives at Vancouver.——Dr. Porter of North Bay, Ont., a patient at the Oakville Sanitarium for Inebriates and Morphomaniacs, was accidently drowned while bathing in Lake Ontario on May 6.——Dr. J. R. Cox, general secretary of the McGill Y. M. C. A., has resigned to commence the practice of medicine.——Dr. Harris, of the consulting staff of the Royal Infirmary, Manchester, is making a tour of inspection of Canadian and American hospitals for the purpose of acquiring information for use in designing and constructing the new building shortly to be erected for the institution he represents.——Dr. W. A. Young, business manager of the *Canadian Journal of Medicine and Surgery* will attend the coming meeting of the American Medical Association.——Dr. Charles P. Johns, Kingston, Ont., has been appointed assistant medical superintendent of the Pancras Infirmary in London, Eng.——Dr. H. A. Beatty, Toronto, who has declined a surgical registrarship at the Westminster Hospital, London, Eng., has been appointed chief surgeon of the Ontario division of the Canadian Pacific Railway; the same order appoints Dr. Edward W. Spragge, chief medical officer of the Ontario division.——Dr. G. P. Girdwood has retired from the chair of chemistry in the medical faculty of McGill University. He has been appointed an emeritus professor in the faculty of medicine. Dr. Girdwood was appointed professor of practical chemistry in 1872 and of chemistry in 1879.——Dr. Henderson, senior demonstrator in the

MacDonald chemistry building of McGill University, has resigned and will be succeeded by Mr. A. Douglas MacIntosh, B.Sc. (Dalhousie), M.A. (Cornell).

FOREIGN.

Low Mortality in 1901.—The year 1901 has passed into history as the record year of low mortality throughout the world generally, says the commissioner of health of Chicago.

Kaiser Forbids Eddyism.—The German emperor has announced that any member of the German army, court, state or church who shall be led away from the path of rectitude by Eddyism shall be removed from office and ostracized.

Japan Grows Camphor.—The Japanese government has endeavored to control the camphor trade for increased revenue. The islands of Formosa and Hondo, the latter being the main island of Japan, are almost the sole producers of the gum. The output has been increased and efforts are being made to complete the control of the production by the government.

LONDON LETTER.

New Operation Department at the London Hospital.

A new operation department, which embodies all the most recent advances which science could suggest, has been opened at the London Hospital. It consists of a theater, four operating rooms, 3 anesthetizing rooms, all facing north with large windows and top lights, four recovery rooms, five operation wards, two sisters' rooms, nurses' room, waiting room, theater superintendent's room, two attendants' rooms, instrument and sterilizing room, surgeons' room, two examining rooms, lavatory and dressers' lavatory. The operating theater has a marble gallery for students, with teak seats and gun-metal rails. A sink room is provided under the gallery. The floors of the rooms are in marble mosaic, and the walls and ceilings are lined with opalite. All angles are rounded, the doors are of polished oak with swing hinges. Separate entrances and exits are provided for each operating room and for the theater. Each day's water supply is boiled and cooled in a special apparatus. In the sterilizing room there is a steam disinfector for dressings, coats, etc. The air-supply is led to the basement from the gardens by a glazed tunnel. It is then driven by an electric fan through a canvas water screen and cotton-wool filters. Then it passes into a heating chamber. Warm and cold air are conveyed by separate tubes. The temperature and air supply of the rooms can be controlled by levers. The usual electric fittings are installed.

Pathology of Pernicious Anemia.

Dr. William Hunter, whose work on this subject is so well known, communicated a paper to the Pathological Society on the "Infective Lesions of the Tongue, Stomach and Intestines in Pernicious Anemia," which was an extension of previous researches. He pointed out that in pernicious anemia there is hemolysis, which is not found in other anemias, such as those due to poverty, ulcer of the stomach, ankylostomiasis, hemorrhages, etc. Sepsis alone is incapable of producing pernicious anemia, for in septic anemia there is no evidence of hemolysis in the liver. The present communication was based on the examination of 25 cases recently observed. In seven necropsies were performed and 1145 sections and 250 cultures had been made. A peculiar form of glossitis was found in all the twenty-five cases. There was thinning of the mucosa, which in places was quite wanting so that the lymphatics of the tongue were practically in communication with the buccal cavity. This thinning of the mucosa produced a glossy condition of the surface of the tongue, which was quite peculiar to the disease. From the lymphatics of the tongue pure cultures of the streptococcus longus were obtained. Injected into mice they were fatal in six or seven days. In the stomach an inflammatory condition of the mucous membrane extending down to the mucosa was found. The epithelium was thrown off in large quantity as mucoid vomit and in the final stage complete atrophy of the gastric mucosa occurred. Marked lesions of the intestines were also found. Mucoid fluid was vomited in the mornings, which contained pure cultures of the streptococcus longus.

Joint Lesion in Hemophilia.

Mr. A. Lucas showed a specimen of this rare condition. A hemophilic boy had repeated hemorrhages into the knee-joints, more frequently into the right joint. This joint was much enlarged, the synovial membrane was thickened, the fringes were hypertrophied and stained from repeated hemorrhages, and the ends of the bones appeared to be enlarged. The cartilages were slightly lipped as in osteo-arthritis. The articular surface showed many irregular pits where the cartilage had entirely disappeared.

Acute Pyelitis in Infancy.

At the Edinburgh Obstetrical Society, Dr. John Thomson described 8 cases observed since Dr. Emmet Holt of New York wrote his paper in 1894. The condition, therefore, is not rare. Undiagnosed it is an alarming illness, but under proper treatment it was very curable. Dr. Thomson's patients were all girls of ages varying from 7½ to 20 months, but the disease occurs not uncommonly in older children. In almost all the published cases the patients have been girls. In one of the eight cases the parents were rheumatic and in another there was a family history of gout. In six cases the previous health had been excellent, and in two there were chronic dyspepsia and rickets. The patients had all been artificially fed. Two had shown symptoms of infantile scurvy and two had had influenza. In all but one there had been troublesome constipation and in some occasional diarrhea. In five cases at least there was a history either of soreness about the anus or pain during defecation or blood had been seen in the motions, and in two there was soreness of the vulva. The symptoms were ushered in by pyrexia; in four cases there were rigors. The temperature was frequently above 104 and was of more or less remittent type so that the chart looked like that of typhoid fever. There might be screaming fits as in colic. Tenderness of the kidney was distinct in two cases. Albumin was always present in the urine, but never in greater quantity than could have been accounted for by the pus cells. Pus was always present in considerable amount. Sometimes the urine was turbid with it. Bacteria were visible in large numbers in the freshly-passed urine and cultures of the urine gave pure growths of the bacillus coli communis. This organism was the cause of the disease; it might reach the renal pelvis by the blood or by the urethra. The great preponderance of females suggested the latter. The diagnosis depends on the presence of pus and bacilli in acid urine, the occurrence of rigors (almost conclusive), local tenderness and considerable fever. Under treatment improvement was rapid, but pus did not disappear from the urine for several weeks. The essential point is to render the urine neutral. Most striking results were obtained from administration of alkalies. Citrate of potash should be freely given; 24 gr. in the twenty-four hours may suffice in mild cases, but generally 36 to 48 gr. are necessary. Relapse may occur when the potash was discontinued. Antiseptics alone are not very efficacious, but in combination with alkalies are helpful.

Correspondence.

A Voluntary National Examining Board.

PHILADELPHIA, MAY 31, 1902.

To the Editor:—There being a little misconception as to the exact purpose of a Voluntary National Board of Examiners, which I advocated at the April meeting of the Committee on National Legislation representing the American Medical Association, in the city of Washington, I will explain the plan more fully.

Some have thought that such a board could only benefit recent graduates, and that it fails to give relief to practitioners. Good as it is for the recent graduates, it is much better and was really more intended to aid and benefit practitioners, who from ill health, on account of consultation practice, professorial calls, or any cause whatsoever, may wish a license in another state. My own experience upon removal to Pennsylvania has caused me to work at the problem of reciprocity for the past three years, and I have constantly agitated the subject as a member of the Committee on National Legislation. The president and other members of the Pennsylvania State Board were anxious to exempt me from examination and tender a complimentary license, but, after consultation, found such a course impracticable. The law is mandatory and not at all elastic. All candidates for license must submit to an examination in certain branches, and *each branch is specifically named.* Although I had limited my work to general surgery for years before moving to Philadelphia, and intended doing so in this city, I was examined in obstetrics, hygiene, physiology, chemistry; in fact, all of the branches, just as a neophyte. While the board was compelled to insist that I comply with the forms of law, they were most courteous and kind to me, doing all in their power, and I would not

have any one think me antagonistic to state boards. On the contrary, it is my belief that they have done more than all other influences combined to elevate and make possible the present high standard of medical education. I feel, and have said on many former occasions, that every teacher in this country does better work now than he did before there were state boards to examine the candidates whose diplomas he signed. Recognizing the good work done by state boards, and believing them to be capable of doing even better work in the future, I would like to see a member of this Voluntary National Board a representative of the National Confederation of State Medical Examining and Licensing Boards. A national board, such as I advocate, could have discretionary power, giving a practitioner a practical and largely clinical examination. In case one is recognized as a specialist, and has limited his practice to such specialty for years, and means to do so in the future, I cannot see any good reason for exacting of him an examination in general medicine and surgery.

The plan for a national board was fully discussed, unanimously endorsed and recommended to the House of Delegates at the Saratoga meeting by the Committee on National Legislation and the representatives of the various states meeting with it.

The plan is as follows: The board is to consist of seven members, namely, the surgeons-general of the Army, Navy and Marine Hospital Service and four equally representative civil practitioners; two to be elected by the House of Delegates of the American Medical Association, one by the American Congress of Physicians and Surgeons and one by the National Confederation of State Medical Examining and Licensing Boards In my first communication I said that a seventh might be added; I now say should, because I am convinced that it will strengthen the National board to have one of its members a representative of the National Confederation of State Medical Examining and Licensing Boards. The National and state boards would thus walk hand in hand, and the representative of the former board could report annually at the meeting of the state boards the character of the work that was being done by the central body. Confidence would necessarily follow, and such a board would at once have the support of the profession, as it would be comprised of able men absolutely above suspicion.

The time of meeting should be from June 1 to July 1, so as to accommodate the greatest number of graduates of all schools. The examination should be both theoretical and practical. Applicants should be taken into the wards of hospitals and be given opportunities to make diagnoses, examine urine, sputum and blood, as well as to outline courses of treatment. The examination should be so comprehensive as to be at least equal, if not superior, to that required by any state.

A different time and place might, if thought best, be decided upon for the examination of practitioners. Certainly abundant clinical material and cadavers would be needed, and the board would go where it could be best accommodated, and also be accessible to the greatest number of applicants. These examinations should be almost entirely practical and clinical, supplemented, if need be, by operative work upon the cadaver. It is both unnecessary and unfair to examine men of experience and merit upon such branches as chemistry, physiology, histology, etc. Such a board could have discretionary power and give the kind of examination necessary to ascertain if the applicant is competent to practice general medicine and surgery, or even a specialty, if one is recognized as a specialist. Is it fair to expect an ophthalmologist to submit to an examination in obstetrics? Yet, under the state laws, no exception can be made in his favor. Many state laws, the majority perhaps, recognize the right of one board to accept the license of another whose standard in every way equals its own. Herein is the trouble; the standards of fifty states and territories vary so widely—no two of them being alike—that a state with a high standard finds it safer to recognize no other state, for by this course embarrassments are avoided. All can, however, agree to recognize a central National board, just as all now recognize the commissions of medical officers of the Army, Navy and Marine-Hospital Service. Therefore, it points out a path to reciprocity that all may follow, and is the only attainable method, based as it is upon equity. As it is now, reciprocity can only be based upon geographical, political and financial considerations. Intellectual qualifications alone should govern.

The board should meet, as a rule, in Washington, provided its hospital facilities are both adequate and available. It is desirable, however, to vary the place of meeting from time to time so as to make the board truly a National one in fact as well as in name, thereby subserving the interests of the greatest number of applicants. There is no doubt that the medical schools and hospitals in any of our large cities would furnish quarters and facilities for conducting the examinations with the least possible friction. I have been surprised that one gentleman took exception to my plan because he thought that all examinations were to be held in Washington. The headquarters of the board should certainly be at the National capitol, as at least three of the members will reside there and a fourth—constituting a majority—should be selected within a reasonable distance of Washington, so that if necessary he could at once join his colleagues for consultation. If the bureau of health is established by this Congress, which seems reasonably certain, I have it from an authoritative source that quarters and every facility for conducting the examinations, etc., would be furnished the board.

The fee should be $25 for the first year, the same to be reduced when the number of applicants justifies it, which, I take it, would be the second or third year. I should like to see it not more than $10. The expenses of the board have to be met and some fee will be necessary.

The inducement to recent graduates to take such an examination would be to obtain a diploma which should be recognized by all states and territories, so that its possessor could be allowed, like the Constitution, to follow the flag, and practice medicine and surgery anywhere within our domains. There would be other inducements: there are many positions within the gift of the Federal Government, such as contract surgeons in the Army, Navy and Marine Hospital Service, physicians to Indian agencies, and members of pension boards of examiners in all parts of the country requiring the services of more than average men. Any one holding the diploma or certificate of such a National board would at once have the advantage over any one less fortunate. In truth, in nearly all such cases a further examination could, with perfect justice to the government, be waived. So manifest are its advantages that each year there would undoubtedly be a larger number of applicants, and in time sub-boards would be necessary to accommodate the number applying, each to meet in some large city with abundant hospital facilities and accessible to many applicants. Perhaps it would be better to have more frequent sittings of one board rather than several sub-boards. Experience will determine.

A voluntary board is better for the profession than a compulsory one, even were the latter possible—which, under our form of government, is not the case—for its standard can reasonably be made higher and its certificate be a diploma *cum laude*. Letters read at the conference, before referred to, from prominent senators and representatives convinced all who were present of the impossibility of a compulsory National board. I had been so convinced before, as I had written to and talked the matter over with several of my friends in both the House and Senate. Should the fees be insufficient to secure and retain the services of the best men, the American Medical Association, the Congress of Physicians and Surgeons and the National Confederation of Examiners should add a sufficient honorarium to their appointees. The representatives of the Army, Navy and Marine Hospital Service would be estopped from accepting compensation, but, of course, their expenses would be paid.

All practitioners wishing to change their location or receive license to practice in other states would prefer appearing before the voluntary National board, and nearly all would make it convenient to do so. Of recent graduates there would be an increasing number applying from year to year, as it would soon become apparent to them that their best interests were subserved by doing so.

I have little doubt, however, that the fees would be sufficient to pay the expenses even the first year. If the examination should be held in Washington, it would be very accessible to all eastern schools, representing, we will say, a thousand

graduates. There will be more, as Philadelphia alone has each year about 400. The eastern schools are of such a standard that they would encourage their graduates to go before the voluntary National board, and it would be safe to count upon 10 per cent. (100) of the graduates of Washington, Baltimore, Philadelphia, New York, Richmond and Charlottesville (University of Virginia) and other cities adjacent to the capitol doing so. Twenty-five hundred dollars should thus be assured; the expenses would be nominal and all over and above expenses would be divided between the four examiners. This 10 per cent. could be probably doubled by the board meeting in Washington one week, and then spending a week in each of the large cities adjacent to it, viz.: Baltimore, Philadelphia and New York. The medical schools in these cities would willingly furnish quarters and facilities for conducting the examinations, and the hospitals furnish all necessary clinical advantages.

An objection which might, and will be raised, is that the surgeons-general of the Army, Navy and Marine Hospital Service cannot leave Washington, and perhaps would not be able to discharge the duties even when the sittings of the board were at the capitol. General Wyman and Admiral Rixey are very much in sympathy with the plan, will serve if they can, and if not, will detail the best man in their respective services. It is a great thing to have the moral support of our three representative medical services in any medical matter. General Sternberg, I know, retires June 8, before the Association meets. I was assured by those in authority in his office, however, that there was no doubt that his successor, whoever he may be, would do everything in his power to co-operate with the other surgeons-general and the profession in so important a matter.

This plan has been unanimously endorsed by the delegates from the several states meeting with the Committee on National Legislation, and will be recommended to the House of Delegates at the coming meeting of the American Medical Association. It is hoped that it will be carefully considered, and either it or a better plan at once inaugurated; as something should be done to encourage both a reasonable reciprocity for practitioners and a higher and a better medical education for those entering the profession, and to give in return something in the way of privileges and professional standing to those possessing it.

WILLIAM L. RODMAN,
Professor of Surgery and Clinical Surgery in the Medico Chirurgical College of Philadelphia, and Professor of Surgery and Clinical Surgery in the Woman's Medical College of Pennsylvania.
1626 Spruce Street.

A Voluntary National Examining Board.

To the Editor:—The letters which have recently appeared in THE JOURNAL suggest two things: first, the necessity of some authority which shall have power to determine who are worthy of license to practice medicine in this country and, second, in whom shall that authority be vested. This naturally leads to the inquiry: By what means can that authority be enforced? Clearly such power can only be obtained through National legislation. In order to obtain that, the scheme must be of such a character as to commend itself to the House of Representatives and the Senate, and finally the President. As has been suggested by one correspondent, the right of the citizen of this country to earn his living is a constitutional one with which Congress will be slow to meddle, the greatest care being always observed to keep within constitutional limits, and the attempt to place the rights and liberties of, say 300,000, educated and honorable physicians in the hands of a small, irresponsible body of men, as suggested by Dr. Rodman, would be in such direct controvention of their rights as to preclude the enactment of such a law. In fact, much of the state legislation in this regard would scarcely stand an appeal to the Supreme Court of the United States.

A large representative body might be formed, composed of men appointed by the legislatures of each and all the states, say two from each state, in whom the government might have enough confidence to entrust them with such great powers and responsibilities, and even then the graduates of the great universities and collges would have to be protected, as all these powerful bodies would have their interests to preserve, and would take care to preserve them. Having had much legislative experience I speak with some confidence on this point.

If we had a great national college, like the Royal College of England, the entrance to which might be carefully guarded, whose members would be entitled to practice anywhere in this realm, it might be sanctioned by the government and would answer the ends sought by those who are advocating a change. Let me suggest that the needed legislation should be strongly felt and clearly understood before steps are taken to secure it. The present state boards of examination should be set aside in favor of a national body, as I have already described, and they should be compelled to accept diplomas of the three-year teaching colleges without dispute as a right to membership, and details as to state examinations could easily be arranged.

Yours, etc.,
ADAM E. FORD, M.D.

[Our correspondent does not seem to appreciate the fact that what he advocates would be unconstitutional, and that the board advocated by Dr. Rodman is purely a voluntary one, and no one would be forced to go before it.—Ed.]

Reciprocity in Medical Licensure.

BURLINGTON, IOWA, May 31, 1902.

To the Editor:—In all that I have seen written (and I have seen a good deal) in the medical journals to which I have access, about "reciprocity in medical licensure," I fail to note the one simple solution of the question, namely: An amendment to the medical law, in each of the several states having medical practice laws, which shall provide that the penalties shall not attach to those legally qualified to practice in other states. Heaven knows there are already exemptions in plenty and far more dangerous than this would be; and there is scarcely a chance for such an amendment to fail in any legislative body. But what a spectacle for the masses it is, to see so much remonstrance about the exact administration of the laws we have fought so valiantly to have enacted! For myself I want to say, that while I believe a good medical practice law is a benefit alike to the public and the medical man, I am not enthusiastic over any of those with which I am familiar. Drawn up, as the Iowa law was, by a combination with the Homeopaths and Electics—with whom under no other circumstances could we associate—they bear the stamp of insincerity; and naturally fail to win the respect of the public and the courts. Truly yours,

H. B. YOUNG.

Married.

BERNARD S. FRENCH, M.D., Whitefield, N. H., to Miss Elsie L. Berry of Baltimore, May 21.

GEORGE LENZ, M.D., Gloversville, N. Y., to Miss Annie Grant of Ingersoll, Ontario, May 21.

FRANK B. WHITMORE, M.D., to Miss Anna B. Washburn, both of West Union, Iowa, May 20.

CHARLES GIVEN FOOTE, M.D., Cleveland, Ohio, to Miss Kittie A. Richards of Chicago, May 24.

GUSTAVUS A. HEINRICH, M.D., to Miss Anna L. Neurnberger, both of New Athens, Ill., May 18.

JOHN E. PRATHER, M.D., Glasgow, Ill., to Miss Katherine B. Cumby of Winchester, Ill., May 21.

MILES D. CHISHOLM, M.D., Westfield, Mass., to Miss Margaret A. Rison, of Williamsburg, Va., May 21.

ALBERT F. CONREY, M.D., Baltimore, to Miss Katherine Bradford of Portsmouth, Va., at Baltimore, May 21.

OLE H. BAKKE, M.D., Blooming Prairie, Minn., to Miss Mabel A. Fjeldstad, of South Minneapolis, Minn., May 21.

SAMUEL STEVENS, M.D., Dowagiac, Mich., to Miss Lillian Roosevelt of Benton Harbor, Mich., at South Bend, Ind., May 21.

Deaths and Obituaries.

Dr. William Miller Ord.

Death has removed one of the most celebrated of the London medical teachers, Dr. Ord, consulting physician to St. Thomas' Hospital. His health had been failing since an attack of influenza three years ago. Two years ago he relinquished all active work and retired to the country. Dr. Ord graduated at the London University in 1857, and had a most distinguished career. In 1869 he became a member of the College of Physicians, and two years later assistant physician to St. Thomas' Hospital. His marked ability and energy led to his appointment as lecturer in physiology in succession to the celebrated Dr. Murchison. He was a teacher of extraordinary ability, and as a writer he gave much valuable work to the medical world. In medicine his most important original contribution was the working out of the pathology and symptomatology of myxedema, the name of which he invented.

William Hamilton Watkins, M.D. Tulane University, New Orleans, 1868, a prominent physician of New Orleans, and widely known as an authority on yellow fever, died from cancer of the stomach at the home of his wife's mother in Milwaukee, May 23, after an illness of two years, aged 54. He was chief medical inspector of the New Orleans Sanitary Association, chief inspector of the New Orleans Board of Health, editor of the *New Orleans Medical and Surgical Journal* and chairman of the Yellow Fever Board during the epidemic of 1897.

Matthias Abell, M.D. College of Physicians and Surgeons, New York, 1857, a member of the Rhode Island Medical Society and an honorary member of the New Jersey State Medical Society, died, May 1, at his residence in Providence, R. I., aged 71.

Grant G. Cox, M.D. Hospital College of Medicine, Louisville, Ky., 1898, a practitioner of Boothsville, W. Va., who was injured in a runaway accident at Watson, May 13, died at Cook's Hospital, Parkersburg, as a result of his injuries, May 23.

Green B. Battle, M.D. Medical College of Georgia, Augusta, 1875, a son of the late Dr. T. W. Battle of Columbus, Ga., a practitioner of Lumpkin, Ga., died at the home of his mother in Columbus, after a prolonged illness, aged 49.

Eleazer A. Pyatt, M.D. Jefferson Medical College, Philadelphia, 1861, for more than thirty years a resident of Bethany, Ill., died at his home in that place, May 19, from dysentery, after an illness of four weeks, aged 69.

John Vedder, M.D. College of Physicians and Surgeons of the Western District of New York, Fairfield, 1838, president of the New York State Anti-Vivisection Society, died at his home in Saugerties, N. Y., May 22, aged 86.

Warren Parsons, M.D. National Medical College, Washington, D. C., 1842, a retired physician of Rye, N. H., who had practiced in that town for sixty years, died May 20, aged 83.

Henry Van den Berg, M.D. Keokuk Medical College, 1883, a practitioner of Fremont Center, Mich., died at Zeeland, Mich., May 23, after an illness of one year, aged 45.

James K. Nevin, M.D. Rush Medical College, Chicago, 1887, died at his home in Ironwood, Mich., May 18, from pneumonia, after an illness of a week, aged 47.

John B. Wilson, M.D. Kentucky School of Medicine, Louisville, 1888, a physician of Mount Vernon, Ind., died, May 20, at Denver, where he had gone for his health.

Henry Howard Hill, M.D. Jefferson Medical College, Philadelphia, 1867, medical inspector of Bedford County, died at his home in Everett, Pa., May 22, aged 57.

P. H. McGurty, M.D. Kentucky School of Medicine, Louisville, 1892, died from consumption, May 21, at the home of his sister in Charleston, Ill.

Edward Bernier, M.D. Dartmouth Medical College, Hanover, N. H., 1889, died at his home in Schaffer, Mich., May 19, from heart disease.

Joseph F. McCloughan, M.D. University of Pennsylvania, Philadelphia, 1871, died at his home in Swartswood, N. J., May 16, aged 53.

Alexander Montague, M.D. New York University, 1868, for many years a practitioner of Galt, Cal., died in Sacramento, May 21.

George W. Archer, M.D. Medical College of Virginia, Richmond, 1887, died at his home in Detroit, Mich., May 18.

Ford S. Dodds, M.D. Western Reserve University, Cleveland, 1868, died at his home in Anna, Ill., May 21.

Association News.

A Suggestion as to Exhibits.

It is suggested in cases of papers to be read in any section, in connection with which specimens are exhibited, that the authors send the latter to the pathologic exhibit. This course will enable a better inspection and study and consequently add to the usefulness of their communication. The specimens can be put in the hands of the Committee on the Pathologic Exhibit, of which Dr. F. M. Jeffries, Saratoga, N. Y., is chairman, and can be taken out for presentation to the section when the paper is read. The utility of the suggestion is obvious and needs no further comment.

Proposed Amendments.

The following amendments are to be acted on by the House of Delegates at the next annual meeting of the American Medical Association:

Amendment to the Constitution and By-laws, offered by Dr. L. B. Tuckerman, of Ohio: Amend Section 3, Chapter VII of the By-laws by substituting the following:

"Section 3. Committee on Legislation. The Committee on Legislation shall consist of three members appointed by the President of the Association for a term of three years. One member shall be a resident of Washington, D. C., one of Baltimore, and one of Philadelphia. It shall be the duty of the Committee to represent before Congress the wishes of this Association regarding any proposed legislation that in any respect bears upon the promotion and preservation of the public health or upon the material or moral welfare of the medical profession. This Committee shall also invite to a conference once a year, or oftener if need be, one delegate each from the medical service of the United States Army, the United States Navy, and the Marine-Hospital Service, one from the Bureau of Animal Industry, and one from each affiliated state or territorial medical society; such conference to meet in Washington to consider questions of medical and sanitary legislation, and to report back to this Association and to the several state and territorial societies."

Amendment to the Constitution and By-laws, offered by Dr. T. J. Happel, of Tennessee:

Chapter IX, Section 7, as follows: Strike out the following words of Section 7, Chapter IX, "reprints and transactions of Sections, including its lists of members, its rules of order, its lists of officers, as now published, shall be paid for out of the funds of the Association, and furnished free to members of the Association."

Representatives from State Societies to the House of Delegates of the American Medical Association.

The following have been officially certified to the Secretary as representatives:

Alabama—W. H. Sanders, Mobile; W. M. Wilkerson, Montgomery.

Arizona—W. H. Ward, Phoenix.

Arkansas—J. A. Dibrell, Little Rock.

California—H. Bert Ellis, Los Angeles.

Colorado—C. K. Fleming, Denver.

Connecticut—

Delaware—Willard Springer, Wilmington.

District of Columbia—George M. Koeber, Washington.

Florida—R. D. Murray, Key West.

Georgia—James B. Morgan, Augusta; Floyd W. McRae, Atlanta.

Idaho—Ed. E. Maxey, Boise.

Illinois—John T. McAnally, Carbondale; F. X. Walls, Chicago; O. B. Will, Peoria.

Indian Territory—

Indiana—G. W. H. Kemper, Muncie; Edwin Walker, Evansville; William N. Wishard, Indianapolis; D. C. Peyton, Jeffersonville.

Iowa—George F. Jenkins, Keokuk; J. R. Guthrie, Dubuque.

Kansas—J. E. Minney, Topeka.

Kentucky—J. N. McCormack, Bowling Green; Thomas Hunt Stucky, Louisville.

Louisiana—

Maine—Seth C. Gordon, Portland.

Maryland—William H. Welch, Baltimore; William Osler, Baltimore.

Massachusetts—W. T. Councilman, Boston; H. E. Marion, Brighton; J. Collins Warren, Boston; F. C. Shattuck, Boston; C. H. Williams, Boston; J. F. A. Adams, Pittsfield.

Michigan—H. O. Walker, Detroit; V. C. Vaughan, Ann Arbor.

Minnesota—A. W. Abbott, Minneapolis.

Mississippi—J. C. Hall, Anguilla.

Missouri—Frank J. Lutz, St. Louis.

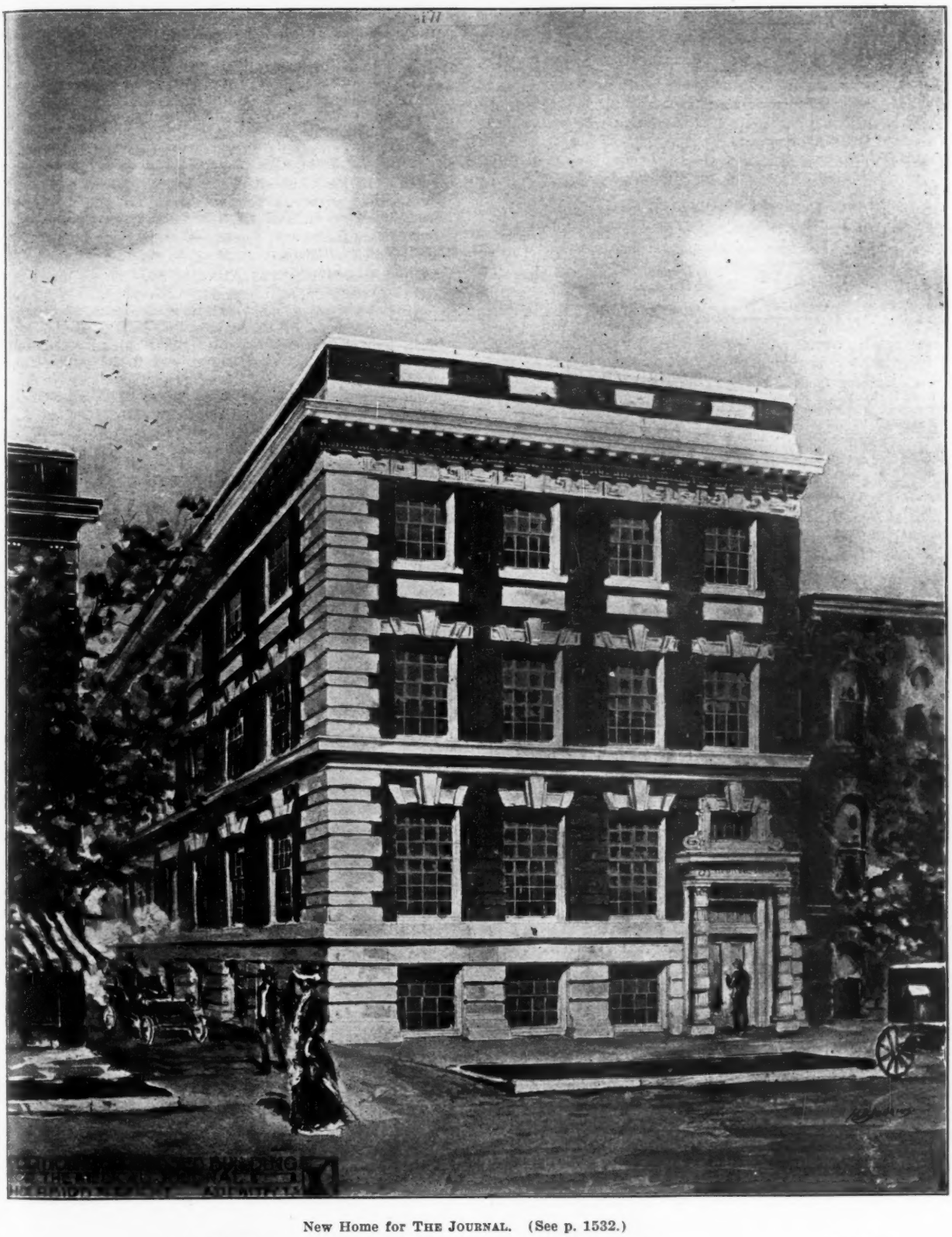
Montana—

Nebraska—H. M. McClanahan, Omaha.
New Hampshire—Ira J. Prouty, Keene.
New Jersey—E. J. Marsh, Paterson; Chas. J. Kipp, Newark; Luther M. Halsey, Williamstown.
New Mexico—G. C. Bryan, Alamogordo.
New York—E. E. Harris, New York; C. A. Wall, Buffalo; H. O. Arrowsmith, Brooklyn; E. D. Ferguson, Troy; Chas. E. Quimby, New York.
Nevada—
North Carolina—James A. Burroughs, Asheville; H. A. Royster, Raleigh.
North Dakota—I. N. Wear, Fargo.
Ohio—Charles A. L. Reed, Cincinnati; P. Maxwell Foshay, Cleveland; Frank Warner, Columbus.
Oklahoma—
Oregon—Andrew C. Smith, Portland.
Pennsylvania—William S. Foster, Pittsburg; George W. Guthrie, Wilkesbarre; A. P. Hull, Montgomery; W. T. Bishop, Harrisburg; H. S. McConnell, New Brighton; John B. Roberts, Philadelphia; William M. Welch, Philadelphia; Webster B. Lowman, Johnstown.
Rhode Island—John Champlin, Westerly.
South Carolina—
South Dakota—
Tennessee—W. Frank Glenn, Nashville.
Texas—H. A. West, Galveston.
Utah—
Vermont—D. C. Hawley, Burlington.
Virginia—J. R. Gildersleeve, Tazewell; Landon B. Edwards, Richmond; Rawley W. Martin, Lynchburg.
Washington—Park Weed Willis, Seattle.
West Virginia—L. D. Wilson, Wheeling.
Wisconsin—W. T. Sarles, Sparta; J. R. Barnett, Neenah.
Wyoming—R. Harvey Reed, Rock Springs.
United States Marine-Hospital Service—Walter Wyman, Washington, D. C.
Medical Department U. S. Army—D. M. Appel, Ft. Bayard, N. M.
Medical Department U. S. Navy—R. A. Marmion, Washington, D. C.

Delegates from the Sections.

Practice of Medicine—J. M. Anders, Philadelphia; Norman Bridge, Los Angeles.
Surgery and Anatomy—C. A. Powers, Denver; A. D. Bevan, Chicago.
Obstetrics and Diseases of Women—L. S. McMurtry, Louisville; W. H. Humiston, Cleveland, Ohio.
Hygiene and Sanitary Science—S. G. Bonney, Denver; N. S. Davis, Jr., Chicago.
Ophthalmology—J. A. Lippincott, Pittsburg, Pa.; H. V. Würdemann, Milwaukee.
Diseases of Children—S. W. Kelly, Cleveland, Ohio; A. C. Cotton, Chicago.
Stomatology—G. V. I. Brown, Milwaukee; A. E. Baldwin, Chicago.
Nervous and Mental Diseases—H. A. Tomlinson, St. Peter, Minn.; H. N. Moyer, Chicago.
Cutaneous Medicine and Surgery—W. L. Baum, Chicago; W. T. Corlett, Cleveland, Ohio.
Laryngology and Otology—Emil Mayer, New York City; George C. Stout, Philadelphia.
Materia Medica, Pharmacy and Therapeutics—O. T. Osborne, New Haven, Conn.; A. B. Lyons, Detroit, Mich.
Physiology and Pathology—W. A. Evans, Chicago; Alfred Stengel, Philadelphia.

View of Property Recently Purchased by the Board of Trustees of the American Medical Association. (See p. 1532.)



New Home for THE JOURNAL. (See p. 1532.)

New Members.

The following is a list of new members for the month of May, 1902:

ALABAMA.

Lupton, F. A., Birmingham.

ARIZONA.

Stone, H. H., Phœnix.

ARKANSAS.

Oakley, J. F., Augusta.

CALIFORNIA.

Gordon, S. B., Salinas.
Whiting, H. C., Santa Cruz.
Uttley, J. H., Los Angeles.
Deane, L. C., San Francisco.
Adam, Geo., San Francisco.
Edwards, T. C., Salinas.
Campbell, P. C., Port Richmond.
Cleary, Geo., San Diego.
Moore, M. L., Los Angeles.
Hart, A. C., Sacramento.

CONNECTICUT.

Coyle, W. J., Windsor Locks.
Smith, E. L., Hotchkissville.
Bull, T. W., Saugatuck.
Davis, E. T., Ellington.
Cochran, L. B., Hartford.
Ring, H. W., New Haven.
Tingley, W. K., Norwich.
Wheeler, F. H., New Haven.

DISTRICT OF COLUMBIA.

LaGarde, L. A., Soldiers' Home.

FLORIDA.

Hutchason, C. I., Jacksonville.

GEORGIA.

Johnson, G. H., Savannah.

HAWAIIAN ISLANDS.

Katsuki, Ichitaro, Honolulu.

IDAHO.

Emerson, J. W. S., Shoshon.

ILLINOIS.

Ballenger, W. L., Chicago.
Graham, H. G., Chicago.
Adams, Chas., Chicago.
Porter, J. E., Shannon.
McCreight, S. L., Chicago.
Snow, Morton, Chicago.
Whitaker, W. B., Chicago.
Beirne, H. P., Quincy.
Blaine, W. C., Tuscola.
Crain, L. F., Dongola.

INDIANA.

Benham, C. W., Vincennes.

Hawes, J. K., Columbus.
Ross, R. O., Indianapolis.

IOWA.

Bowen, D. H., Waukon.

KENTUCKY.

Moore, J. S., New Hope.
Caldwell, D., Paducah.
Hudgius, C. L., Olive Hill.
Smith, W. E., Yost.

LOUISIANA.

Perkins, W. M., New Orleans.

MAINE.

Sturdivant, A. H., Augusta.

MARYLAND.

Randolph, R. L., Baltimore.
Naylor, N. L., Pikesville.
Smith, W. H., Baltimore.
Porter, M. G., Lonaconing.

MASSACHUSETTS.

Smith, A. C., Brockton.
Kepler, C. O., Boston.
Richards, W., Natick.
Haddock, C. W., Salem.
Hallett, E. B., Worcester.
Spencer, G. A., Haverhill.
Hanley, J. J., Boston.
Davis, Lincoln, Boston.
Wales, E. de W., Boston.
Briggs, L. V., Boston.
Williams, Hugh, Boston.
Cumston, C. G., Boston.
Williams, E. R., Boston.
Mumford, J. G., Boston.
Connolly, J. M., Boston.
Marcy, H. O., Jr., Boston.
Barrell, C. S., Boston.
Hinckley, J. W., Boston.
Cabot, R. C., Boston.
Higgins, F. A., Boston.
Howard, F. H., Williamstown.
Byrne, C. A., Hatfield.
Pratt, C. A., New Bedford.
Perley, R. D., Melrose.
Choate, H. H., Salem.
Knowles, J. H., Gloucester.
Baldwin, S. O., S. Framingham.
Morin, J. M., Brockton.

MICHIGAN.

Steinbrecher, A. H., Detroit.
Henry, T. C., Grass Lake.
Goux, L. J., Detroit.
Schwanz, M. J., Jr., Saginaw.
Arneill, J. R., Ann Arbor.
Patrick, O. H., Port Huron.
DeForest, A. M., Detroit.
Foster, T. J., Scottville, Mich.
Abrams, E. T., Dollar Bay.
Evans, E. E., Armada.

MINNESOTA.

Disen, C. F., Minneapolis.
Heuslin, A. E., LeRoy.

MISSISSIPPI.

Sessions, R. D., Natchez.

MISSOURI.

Brown, R. A., Stockton.
Goldstein, M. A., St. Louis.
Thorpe, A. V., Jamestown.
Douglass, G. G., Ravenswood.
Lewis, B., St. Louis.
Mark, E. G., Kansas City.

MONTANA.

Gwinn, R., Missoula.

NEBRASKA.

Woodard, D. S., Aurora.

NEW HAMPSHIRE.

Coolidge, J. W., Bristol.

NEW JERSEY.

Cort, P. L., Trenton.
Kane, C. J., Paterson.
Sherman, E. S., Newark.
Lund, J. L., Perth Amboy.

NEW MEXICO.

Appel, D. M., Ft. Bayard.
Carrington, P. M., Ft. Stanton.

NEW YORK.

Brown, G. L., Buffalo.
Hopkins, H. G., Buffalo.
Gaylord, H. R., Buffalo.
Frye, Maud J., Buffalo.
Keiser, Max, Buffalo.
Wende, G. W., Buffalo.
Harris, Jane Howell, Brooklyn.
Roberts, D. D., Brooklyn.
Lutz, S. H., Brooklyn.
Manges, Morris, New York City.
Hammond, F. P., New York City.
Fitzhugh, P. H., New York City.
Kahrs, W. H., New York City.
Knapp, Herman, New York City.
Weiss, Ludwig, New York City.
Gibb, W. T., New York City.
Bickhan, W. S., New York City.
Cox, R., Jr., New York City.
Polk, W. M., New York City.
Tucker, A. B., New York City.
McGrath, J. J., New York City.
Thompson, W. G., New York City.
Libman, E., New York City.
Keyes, E. L., Jr., New York City.
Morgan, Forde, New York City.
Moore, J. F., New York City.
Wolper, Max, New York City.
Wiener, R. G., New York City.
Thompson, C. N., New York City.
Carmalt, C. C., New York City.
McNett, G. C., Bath.
Walch, C. J., Syracuse.
Park, J. T., Sandy Hill.
Bishop, B. F., Garrattsville.
Phillips, C. R., Hornellsville.
Kline, C. D., Nyack.
Maynard, S. D., Roscoe.
Davis, J. C., Rochester.
Doran, R. E., Sonyea.
Clarke, H. E., Glens Falls.
Bullard, T. E., Schuylerville.
Shanahan, W. T., Sonyea.
Watt, J. L., College Point, L. I.
Roarke, F. K., Troy.
Gibson, W. B., Huntington.
St. John, F. W., Charlton.
Caldwell, H. W., Pulaski.
Field, Edwin, Red Bank.
Strang, J. R., Vischer's Ferry.
Van Wagenen, D. B., Suffern.
Wines, F. L., Laurens.
White, W. A., Binghampton.

OHIO.

Smith, G. S., Cleveland.
Baker, L. K., Cleveland.
Rankin, T. W., Columbus.

OKLAHOMA.

Munsell, L. S., Beaver.

OREGON.

Labbé, E. J., Portland.
Josephi, G. E., Portland.
Hoover, E. V., Roseburg.

PENNSYLVANIA.

Jump, H. D., Philadelphia.
Bauer, L. D., Philadelphia.
Asher, J. M., Philadelphia.
Stevens, A. A., Philadelphia.
Levi, I. V., Philadelphia.
Wallis, J. F., Philadelphia.
McCarthy, D. J., Philadelphia.
Spiegle, Grace E., Philadelphia.
Katzenstein, G. P., Philadelphia.
Rhein, J. H. W., Philadelphia.
Slaughter, C. H. P., Philadelphia.
Price, J. C., Scranton.
Martin, N. W., Wellsboro.
McConnel, P. G., Beaver.
Rasely, E. R., Uniontown.
Styir, C. J., Allegheny.
Barnes, A. C., Overbrook.
Goodwin, F. A., Susquehanna.
Sadowski, L., Pittsburg.
O'Brien, J. E., Scranton.

RHODE ISLAND.

Calder, A. W., Providence.

SOUTH DAKOTA.

Savery, C. J., Fort Pierre.

TENNESSEE.

Leake, E. K., Collierville.

TEXAS.

Anderson, J. C., Granger.
Abney, G. M., Franklin.
Luttrell, J. M., Mineral Wells.
Engelhardt, H. A., Houston.
Young, F. E., San Antonio.

WASHINGTON.

Libbey, G. A., Tacoma.
Smith, A. M., Whatcom.

WEST VIRGINIA.

Solter, H. C., Huntington.
Burgess, T. D., Matewan.

WISCONSIN.

Strong, R. J. C., Arlington.

Saratoga Meetings.

Among the meetings to be held at Saratoga Springs during the week of the Association meeting are those mentioned below. Others have received previous notice in these columns.

The American Association of Life Insurance Examining Surgeons will meet at Saratoga June 9. A very interesting program has been arranged and we mention a few extracts. Dr. Woods Hutchinson will present a résumé of his conclusions on the form of the chest in phthisis, and its significance. This will be discussed by Dr. William A. Evans, Chicago, who will report the result of his recent measurements of a large number of consumptive chests. Dr. Byron G. Van Horne, Englewood, N. J., will read a paper on "Hernia and Life Insurance," and Dr. George W. Webster, Chicago, on "The Prognosis in Organic Disease of the Heart." Dr. William A. Adams, Texas, the medical inspector in that state for the Equitable Life Assurance Society, and Dr. Charles Lyman Greene, St. Paul, the author of "Medical Examination for Life Insurance," have also promised papers.

American Urological Association.—The annual meeting of this Association will be held in Saratoga, June 13-14. The address of the president, Dr. Ramon Guiteras, New York, will be on "Advances in Urology." Dr. Robert T. Morris, New York, will exhibit specimens of renal calculi. The following papers are announced: "Diagnosis of Renal Tuberculosis," by Dr. John von Glahn, New York; "The Technic of Nephropexy," by Dr. Augustin H. Goelet, New York; "The Knee-Chest Position for Operation on the Ureters," by Dr. Howard A. Kelly, Baltimore; "Stone in Ureter, with Report of Five Cases," by Dr. Orville Horwitz, Philadelphia; "The Importance of Separating Kidney Urines," by Dr. Andrew J. Downes, Philadelphia; "Cystoscopy in the Female," by Dr. William R. Pryor, New York; "Cystoscopy in the Male," by Dr. William K. Otis, New York; "Tuberculosis of the Bladder," by Dr. Joseph B. Bissell, New York; "Operative Indications in Prostatic Hypertrophy," by Dr. Hugh H. Young, Baltimore; "Permanent Results, Failures and Relapses Following the Bottini Operation," by Dr. Filipp Kreissl, Chicago; "A Study of Twenty-three Cases Treated by Perineal Prostatectomy," by Dr. Alexander H. Ferguson, Chicago; "The Diagnosis and Treatment of Chronic Prostatitis," by Winfield Ayres, New York; "The Diagnosis and Operative Treatment of Prostatic Hypertrophy," by Dr. Bransford Lewis, St. Louis; "Diabetes," by Dr. I. N. Love, New York; "Treatment of Uremia," by Dr. Egbert H. Grandin, New York; "Tuberculosis of the Genito-Urinary Tract," by Dr. Granville MacGowan, Los Angeles; "Outlines of Microscopic Urinalysis," by Dr. Louis Heitzman, New York; "A Sketch of the Chemistry of the Urine," by Dr. Heinrich Stern, New York; "A Case of Pregnancy Complicated with Pyonephrosis," by Dr. Charles G. Cumston, Boston; "A New Silver Salt in the Treatment of Urethritis," by Dr. George K. Swinburne, New York; and "Failures in the Irrigation Treatment of Gonorrhea," by Dr. Ferd. C. Valentine, New York.

Societies.

COMING MEETINGS.

American Medical Association, Saratoga Springs, N. Y., June 10 to 13.

American Association of Life Insurance Examining Surgeons, Saratoga Springs, June 9, 1902.

National Confederation State Medical Examining and Licensing Boards, Saratoga Springs, N. Y., June 9, 1902.

Association of American Medical Colleges, Saratoga Springs, N. Y., June 9, 1902.

American Climatological Association, Los Angeles, Cal., June 9-11, 1902.

American Proctological Association, Saratoga Springs, N. Y., June 10, 1902.

Medical Society of Delaware, Newark, June 10, 1902.

Massachusetts Medical Society, Boston, Mass., June 10-11, 1902.

Medical Society of the State of North Carolina, Wilmington, June 10-14, 1902.

Colorado State Medical Society, Pueblo, June 17, 1902.

American Medico-Psychological Association, Montreal, June 17-20, 1902.

Minnesota State Medical Society, Minneapolis, June 18, 1902.

Medical Society of New Jersey, Atlantic City, June 24-26, 1902.

Washington State Medical Society, Tacoma, June 24-26, 1902.

Michigan State Medical Society, Port Huron, June 26-27, 1902.

Medical Association of Nevada, Virginia City, July 7, 1902.

American Ophthalmological Society, New London, Conn., July 16, 1902.

American Medico-Psychological Association.—The fifty-eighth annual meeting of this Association will be held at the Windsor Hotel, Montreal, June 17 to 20, inclusive.

Camden District (N. J.) Medical Society.—At the fifty-sixth annual meeting of this Society, held in Camden, May 13,

Dr. John G. Doron, Camden, was elected president; Dr. John W. Marcy, Merchantville, vice-president; Dr. Paul M. Mecray, Camden, secretary; Dr. Joel W. Fithian, Camden, treasurer; Dr. Harry H. Sherk, Camden, historian; Dr. Joseph H. Willis, Camden, reporter, and Dr. William H. Ireland, Camden, censor.

Barnstaple District (Mass.) Medical Society.—The annual meeting of this Society was held at Hyannis, May 8, at which Dr. Edwin M. Parker, South Yarmouth, was elected president; Dr. Solomon F. Haskins, Cotuit, vice-president; Dr. James H. Higgins, Marston's Mills, secretary; Dr. Charles W. Milliken, Barnstaple, treasurer; Dr. George N. Munsell, Harwich, and Dr. L. Edmonds, Harwich, commission of trials.

Hempstead Memorial Academy of Medicine (Portsmouth, Ohio.)—On May 5, the Academy held its annual meeting, at which Dr. D. Tod Gilliam, Columbus, read a paper on "Woman and Her Ear"; Dr. Edwin S. Ricketts, Cincinnati, delivered a eulogy on the late Dr. Arthur Titus and Dr. Daniel A. Berndt, retiring president, gave a banquet. Dr. William W. Smith was elected president; Dr. Osborne, vice-president; Dr. Milton S. Pixley, secretary, and Dr. Henri G. Halderman, treasurer.

Middle Tennessee Medical Association.—The sixteenth semi-annual meeting of this body was held at Lewisburg, May 15 and 16. At the evening session, the president, Dr. George W. Moody, Shelbyville, delivered an address on "The Dark and Bright Sides of the Medical Profession." Sparta was selected as the next place of meeting. Dr. Leonidas L. Sheddan, Fayetteville, was elected president, and Dr. Rufus E. Fort, Nashville, vice-president. Dr. Frank B. Reagor, Shelbyville, was re-elected secretary.

Cecil County (Md.) Medical Society.—The annual meeting of this Society was held at Elkton, May 20. An address was delivered by Dr. William H. Welch, of Baltimore, on "Infection and Immunity." Resolutions were passed on the recent death of Dr. Harry P. Hinchliffe, Elkton, secretary of the Society. The following officers were elected: President, Dr. George S. Dare, Rising Sun; vice-president, Dr. David L. Gifford, Zion; secretary, Dr. Howard Bratton, Elkton, and treasurer, Dr. John H. Jamar, Elkton.

Indiana State Medical Society.—The fifty-third annual meeting of this Society was held at Evansville, May 22 and 23. The convention was the largest in the history of the Society, nearly 500 being present. The delegates were welcomed to Evansville by Dr. Morton J. Compton, a member of the Council, in the absence of the Mayor. President Alembert W. Brayton, Indianapolis, responded. Dr. Victor C. Vaughan, Ann Arbor, delivered the annual address on "Immunity, Toxins and Antitoxins; the Employment of Antitoxins in the Treatment of Disease." In the evening the guests were given a reception and a moonlight ride on the Ohio by the Vanderburg County Medical Society. The following officers were elected: Dr. John B. Berteling, South Bend, president; Dr. William H. Gilbert, Evansville, vice-president; Dr. Frederick C. Heath, Indianapolis, secretary, and Dr. Albert E. Bulson, Jr., Fort Wayne, treasurer. Richmond was selected as the next meeting-place.

Iowa State Medical Society.—The fifty-first annual meeting of this Society was held in Des Moines, May 21, 22 and 23, under the presidency of Dr. James R. Guthrie, Dubuque. The members were welcomed to the city by Hon. James Brenton, mayor, and Dr. Samuel Bailey responded on behalf of the Society. The pathologic exhibit was especially good. In his annual address the president recommended that there be legislation to eliminate the evil connected with the present system of expert testimony. He also advocated properly-enforced vaccination as the only means of banishing smallpox, and closed his retrospect by citing some of the things which have made American Medicine great in the last century. In the evening Mr. E. D. Salmon, Chief of the Bureau of Animal Industry, Washington, delivered an address on "Bovine and Human Tuberculosis," which was followed by a general discussion of the subject. On the second evening a complimentary concert was given at Foster's Opera House. The election of officers resulted as follows: Dr. James Taggart Priestley, Des Moines, president; Drs. William Jepson, Sioux City, and Charles F. Wahrer, Fort Madison, vice-presidents; Dr. Vernon L. Treynor, Council Bluffs, secretary; Dr. Willis W. Dean, Sioux City, assistant secretary, and Dr. William B. Small, Sioux City, treasurer. Sioux City was selected as the next place of meeting.

OHIO STATE MEDICAL ASSOCIATION.

Fifty-seventh Annual Meeting, held at Toledo, May 28-30, 1902.

The President, Dr. Edmond C. Brush, in the Chair.

At the meeting over 400 members were in attendance, and the sessions were marked by unusual interest in both the scientific and business proceedings. The guests of the meeting were Dr. James Tyson, Philadelphia, who delivered the address in medicine; Dr. A. A. Ochsner, Chicago, who delivered the address in surgery, and Dr. W. J. Mayo, Rochester, Minn.

President's Address.

President Brush spoke of the advantage of affiliating local medical societies with the state and national organizations. He conceded that the Ohio State Society had not the numerical strength it should have. Instead of 1000 members, it should have five times that number. The society had grown in 56 years from a membership of 25 to its present proportions. The increase was not in ratio with the times. The president observed that it was usually the busy doctor that attended the conventions. He found that the men who were always absent were the drones. Those with the medical society habit were the leaders in their respective spheres.

The tendency in larger cities is to have too many organizations. College cliques, hospital cliques and those who are in no clique, get together and form too many societies.

The effort to make the local society a part of the state organization so far has proved unsuccessful. This is because the doctors of smaller places do not like to mix in with strangers. They are willing to attend the local gatherings where they meet with friends and acquaintances, but they refuse to mix with the state physicians. The idea now is to get these stay-at-homes to come to the annual state meetings.

President Brush spoke cheerfully of the future of the organization and pointed with pride to the fact that the organization is now better off financially than it ever was.

Reorganization.

The chief business to come before the session was the proposal to reorganize the body in accordance with the request of the American Medical Association. The constitution and by-laws for state societies, which was drafted by the Committee on Organization of the American Medical Association, was submitted as a report of the committee of reorganization of the state society. The consideration of this report had been made a special order for Wednesday evening, when, after some discussion, it was referred again to the same committee with some suggestions as to changes and with instructions to give a hearing to all members who wished to be heard on the question. Immediately the committee began a three-hour session at which the new organic law was considered section by section. At the close of the hearing the audience voted favorably on the proposition to adopt the new constitution. At 10 o'clock on the following morning the question came up in the general meeting for final disposition. A motion to adopt the new constitution was made, and in a large meeting, without any discussion, it was carried without a single dissenting vote.

Only three changes were made in the draft submitted by the Committee on Organization. The first provides that the vice-presidents shall be arranged in numerical order—first, second and third. The second made the annual assessment one dollar. The third was the most significant, as it involved the substitution of a new clause for Chapter X, "Rules of Conduct." As submitted, this read: "The principles set forth in the Code of Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public." As adopted this chapter reads: "The ethical principles governing the members of the American Medical Association shall govern the conduct of the members of this Association in their relations to each other and to the public."

Officers.

The following officers were elected: President, Dr. William C. Chapman, Toledo; vice-presidents, Drs. George W. Crile, Cleveland; Clovis M. Taylor, Columbus; Martin Stamm, Fremont, and S. F. Covington, Bellefontaine; secretary, P. Max-

well Foshay, Cleveland; treasurer, James A. Duncan, Toledo; delegates to the American Medical Association, Charles A. L. Reed, Cincinnati; P. Maxwell Foshay, Cleveland; Frank Warner, Columbus; alternates, Edwin Ricketts, Cincinnati; T. Clarke Miller, Massillon; George Goodhue, Dayton.

The Society will meet next year in Dayton.

MEDICAL ASSOCIATION OF MISSOURI.

Forty-fifth Annual Meeting, held at St. Joseph, May 20-22, 1902.

President, Jefferson Davis Griffith, Kansas City, in the Chair.

Welcome to St. Joseph.

At the opening session Mayor Borden welcomed the Association to St. Joseph, and Dr. William G. Moore, St. Louis, made a fitting response.

President's Address.

Special cars carried members of the Association to Lake Contrary where a night session was held at the Lake Casino. At this session the president delivered the annual address, in which he advocated high ideals and consecration to the work of life. He devoted some effort to showing the necessity for a reorganization of the state society on a plane which would make it more of a power in the affairs of the state. He advocated the adoption of the principles of civil service in the conduct of the affairs of the state institutions, and favored the maintenance of hospitals for epileptics, crippled and deformed children.

Reorganization.

The committee appointed at the meeting last year to prepare a constitution and by-laws for the society made its report. The constitution submitted provides for reorganization on the basis of the plans adopted by the American Medical Association and, after an animated discussion, was adopted.

Cancer a Parasitic Disease.

DR. ROSWELL PARK, Buffalo, N. Y., delivered an address on "Some Aspects of the Cancer Problem." He went into some detail on the parasitic theory of cancer. He considers it the most important problem in pathology, and cited statistics to show the rapid increase in fatality from the disease, though much of this increase he attributed to improved diagnosis. But as far as the final solution is concerned, it is still the problem of the ages, although considerable encouragement has been derived from the investigations conducted in the Buffalo laboratories under the direct supervision of the board of health of New York.

Election of Officers.

The election of officers resulted as follows: President, Dr. Woodson Moss, Columbia; vice-presidents, Drs. M. P. Overholtzer, Harrisonville; Barton Pitts, St. Joseph; Anselm C. Robinson, St. Louis; Frank De Vilbiss, Spring Garden, and Vaughan Q. Bonham, New Franklin; recording secretary, Dr. Clarence M. Nicholson, St. Louis, and associate recording secretary, Dr. Edward J. Goodin, St. Louis. The Association will meet in Excelsior Springs, May 21-23, 1903.

A Home for the American Medical Association.

We print on pages 1528 and 1529 illustrations of new property recently purchased by the American Medical Association That on page 1528 is a reproduction of a photograph of the property. It is situated on the northeast corner of Dearborn Avenue and Indiana Street, Chicago, on the north side, and quite near the business center. The property is covered with five houses, renting from $35 to $50 each, the two on the north—to the left—are being taken down to make room for the new building. The size of the ground is 80x100. The illustration on page 1529 is a reproduction of the architect's plans for the new building for THE JOURNAL. It will be 40x80 feet, three stories and a high basement. The basement will be occupied by the presses and folders, the first floor by the bindery and mailing room, and the second by the editorial and business offices. The front part of the third story will be occupied by the library, and the rear by the composing room. The cost of the building complete will be a little over $30,000.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Seborrhea Sicca.

The following combination is recommended by J. F. Payne, in Allbutt's "Sys. of Med.," in the treatment of dandruff:

℞.	Sulph. precip.	gr. xv	1
	Acidi carbol.	gtt. xv	1
	Olei amygd. amar.	m. ii	12
	Paraffin moll.	ʒi	30

M. Ft. unguentum. Sig.: To be applied locally at night by rubbing thoroughly into the roots of the hair.

The foregoing may be continued for a fortnight when one of the following lotions may be substituted:

℞.	Liq. carbon, deterg.	m. iv ad. x	25-65
	Glycerini	ʒss	2
	Aq. rosæ q. s. ad	ʒi	30

M. Ft. lotio. Sig.: To be applied thoroughly to the scalp once a day; or:

℞.	Glyceriti acidi tannici	ʒi-ʒii	4-8
	Acidi carbol.	m. v	30
	Aq. rosæ q. s. ad	ʒi	30

M. Ft. lotio. Sig.: Apply locally; or:

℞.	Tinct. cantharidis	ʒss	2
	Hydrarg. bichloridi	gr. i	06
	Spts. camphoræ	gtt. iii	20
	Aq. destil.	ʒi	30

M. Ft. lotio. Sig.: Apply locally with thorough friction once a day.

The last combination is of service only when there is a complete absence of inflammation.

Chilblains.

The following ointment is regarded as one of the best combinations in the treatment of chilblains. It is made up according to Lassar's formula:

℞.	Acidi carbol.	gr. xv	1
	Olei olivæ	ʒiiss	10
	Ung. diachyli	ʒv	20
	Olei lavendulæ	gtt. xv	1
	Petrolati	ʒv	20

M. Sig.: Spread the ointment on linen and apply to the affected part with a bandage, over night.

As a Galactogogue.

The following combination containing calcium glycerinophosphate has been recommended as a galactogogue:

℞.	Calcii glycerinophos.	ʒi	4
	Tinct. nucis vom.	ʒiv	15
	Elix. calisayæ	ʒiii	90

M. Sig:. One teaspoonful in water three times a day.

Granular Conjunctivitis.

The following has been recommended by *Merck's Archives* as of service in the treatment of granular conjunctivitis:

℞.	Cupri sulphatis	gr. i	06
	Acidi salicylici	gr. ii	12
	Cocainæ hydrochlor.	gr. ii	12
	Petrolati albi	ʒiiss	10

M. Ft. unguentum. Sig.: Apply at night and wash the eyes well in the morning with a boric solution.

Fat Diet in Gastric Hyperacidity.

According to the *Ther. Month.* Woldbackmann has recently given attention to the administration of fat, especially in the form of butter and cream, in the treatment of gastric hyperacidity. The good results from his experiments have been substantiated by Rumeberg, Strauss, Penzold and others. The consensus of opinion is that the fat administered in the form of butter, etc., not only causes a diminution of free hydrochloric acid, but also influences the hypersecretion. Under such a diet gastric digestion was never prolonged.

Chronic Bronchitis in Children.

According to the *Med. News* beneficial results are obtained from the use of ichthyol in chronic bronchitis, especially as it retards the disintegration of albumins and favors the absorption of exudates when taken internally. It has been employed by W. B. Jennings in several cases with remarkable success. The following combination is recommended by him:

R.	Ichthyol		
	Glycerini		
	Syrupi aurantii, āā	℥ss	2
	Aquæ q. s. ad	℥ii	60

M. Sig.: One teaspoonful three times a day after each meal. The first few doses sometimes nauseate, but later the child acquires a taste for it.

Pruritus Ani.

The following, according to the *Cin. Lancet-Clinic*, makes a very good ointment in the treatment of pruritus ani:

R.	Acidi carbol.	gr. xxx	2
	Hydrarg. chloridi mitis	℥i	4
	Picis liquidæ	℥iss	6
	Menthol	gr. xx	1 30
	Zinci oxidi	℥ii	8
	Cerati simplicis	℥i	60

M. Ft. unguentum. Sig.: Wash the parts with hot water. Spread the ointment on a cloth, apply to the affected parts and fasten it on with a T bandage.

Asthma.

W. A. Wells, in *New York Med. Jour.*, states that the following combination meets with favor among the asthmatic patients:

R.	Pulv. stramonii		
	Pulv. belladonnæ fol., āā	℥vi	24
	Pulv. potassii nitrat	℥iss	6
	Pulv. opii	gr. xv	1

M. Sig.: To be used in the form of a fumigation. Internally the iodids are of great service in chronic asthma given as follows, according to Fothergill's formula:

R.	Ammon. iodidi	℥iss	6
	Ammon. bromidi	℥ii	8
	Syr. tolutani	℥ii	60
	Tinct. lobeliæ	℥iii	90

M. Sig.: One teaspoonful in water three or four times a day.

Diet in Pregnancy.

A limitation of the diet is the best remedy in the treatment of heartburn in pregnancy, according to E. P. Davis in the *Month Cyc. of Pract. Med.* He states that milk should be taken in considerable quantities, and if it causes any gastric discomfort, it may be mixed with Vichy or other carbonated water. As a rule, meat should not be taken more than once a day. Coffee and tea check excretion, and their use in any quantities during pregnancy should be discouraged. On the other hand, there is danger in limiting the diet too much for the woman's strength must be thoroughly preserved. Plenty of ripe fresh fruit should be taken, and if this can not be obtained stewed fruit, or preserves not too sweet or canned fruit. At least one quart of water should be taken daily internally, and externally a cool sponge bath in the morning and a warm bath at night. For nervous restlessness and insomnia there is nothing more soothing. A pregnant woman should be in the open air a great deal and the house should be well aired.

Spartein.

According to the *Med. News* it is not sufficiently recognized that there are a number of drugs which compare favorably, even if they do not equal the action of digitalis in the treatment of heart disease. Of these drugs spartein has been especially studied by Thomas, a French therapeutist, and he has experimented very largely with the drug in chronic affections of the heart. He finds that it is a reliable diuretic, although it does not stimulate to the secretion of more than three liters of urine daily. It is thus, according to his statement, inferior to theobromin, although frequently more potent than digitalis. In its action on the heart it closely resembles digitalis, although it is a much weaker drug. It acts slowly, but its cumulative and toxic effects are slight. The principal indications for its use, according to this writer, are chronic myocarditis, commencing asystole, subjective cardiac disturbances and arhythmia. For advanced cases and for cases complicated by extensive hepatic and pulmonary changes, the more powerful drug, digitalis, is preferable. The dose should not exceed one-third of a grain in twenty-four hours by the mouth or one-tenth of a grain hypodermically, twice repeated.

According to Sollmann, in his text-book on pharmacology, spartein acts on the muscle of the heart, making it slower and weaker, and he states that because of the latter action it can not be classified with digitalis, as is sometimes done; for digitalis, although it slows the heart, strengthens the contractions. He further states that the blood pressure is usually lowered when the drug is taken by the mouth, since the depression of the heart is more than the constriction of the vessels which it also produces. The diuretic action is not due to spartein but to scoparin, a neutral principle existing with it in scoparius.

Toxic Amblyopia.

Dr. Terrien, as stated in *New York Med. Jour.*, has followed for long periods the cases of patients who, after having had large scotoma for white and colors have regained good central visual acuteness. It is, of course, essential that tobacco and alcohol be foregone. For the phenomena of general intoxication when the patient has insomnia and agitation he prescribes at first small doses of opium or potassium bromid. A little later he employs strychnin, either hypodermically or in pills. The former method he considers preferable, the dose ranging from grain 1/60 (.001) to grain 1/30 (.002). The following is his formula when given in the pill form:

R.	Strych. sulph.	gr. 1/60	001
	Quassin (amorphous)	gr. 1/6	01
	Pulv. rhei q. s.		

M. Ft. pilula No. i. Sig.: Take one such pill two or three times daily before meals. In addition, where practicable, he employs weak continued electrical currents, one electrode being placed on the back of the neck, the other moved alternately under the eyes. The current should be very mild and should not be strong enough to cause pain.

Medicolegal.

Prescription of Liquor by Physician also Pharmacist.—The Court of Appeals of St. Louis, Mo., says, in the case of State vs. Hensley, that it does not understand the law to be that a physician who is running a drug store as a pharmacist has a right, of his own accord, to prescribe for any person, hale or sick, who happens to come round, and then proceed to sell whisky on the strength of his professional officiousness. If a prescription for an intoxicant, issued by a physician, to be filled by himself as pharmacist, is to be anything more than a pretext for illicit sales, it certainly ought to be the honest expression of his judgment as a physician concerning the remedy his patient needs. There is a palpable difference between a case where a pharmacist is a different person from the physician, and has to rely on the latter's direction, and a case where the pharmacist and the physician are the same person. It appears to the court that a man who issues a bogus prescription for whisky as a physician, and then fills it as a pharmacist, is guilty of two crimes, instead of one, and ought to be amenable for both of them. When a sale of liquor is made without a prescription, it is immaterial that one is written after the sale is made, even if it is issued in good faith. The law refuses to accept a "nunc pro tunc" prescription, that is, one made after the time when it should have been made.

Death from Anesthetics Under Insurance Policy.—"Anesthetics administered by a regular physician" having been excepted from such injuries as were not covered by an accident insurance policy, the Court of Civil Appeals of Texas says, in Maryland Casualty Company vs. Glass, that it might be regarded as an insurance against death from chloroform, independent of all other causes. The burden of establishing the fact that the death of the insured resulted, independent of all

other causes, from chloroform administered to him, was on the party suing for the insurance. In other words, she must prove that the anesthetic was proximately the sole cause of the insured's death. If his death was caused by it alone, the company, by the policy, was liable in the principal sum therein specified. But if he was afflicted with disease which caused or directly contributed to his death, the company would not be liable, though chloroform might have been a cause concurring with his affliction in producing death. If he was suffering from appendicitis, as was shown by the indisputable evidence, and if the anesthetic would not have caused his death had it not been for such affliction, but he died because the chloroform aggravated the effects of the disease, or appendicitis aggravated the effect of the drug, the company would not be liable under its contract. For in either event appendicitis and chloroform would be concurring and inseparable agents proximately contributing to his death, and it could not have been the result of an injury from anesthetic, independent of all other causes.

Liability to Users for Mistakes in Sale of Drugs.—The Supreme Court of Appeals of West Virginia asks, in the case of Peters vs. Johnson, can a druggist, from incompetency or negligence, sell to one person the wrong poisonous article as medicine, which, being taken by a third person lying sick in the purchaser's house, inflicts injury upon such third person, without any liability upon that druggist to answer to that third person? It says we know that drugs and medicines are kept in homes, and may, and probably will, be used by other persons than the one buying. Such is the probable, usual case. Is it possible that there is no reparation to this third person for irreparable harm to him from such incompetence or negligence? Considering the frightful dangers lurking in drugs, poisons and medicines, this would be a disastrous rule. Is there no duty upon a seller of medicine, as to persons who may use them, beyond the immediate purchaser, simply because there is no contract between the seller and the third person? Where the action is only for the breach of a contract, only the parties to it, or those who stand in their shoes, can maintain it. Strangers can not sue for its negligent breach. But where, in a given transaction, the law puts upon a person the duty to so act that he does not harm others, independent of a contract, he is liable to third parties, even though executing a contract made with a particular person, if he harms others by negligence. If harm may come reasonably and probably to any one from another's action, there is duty on him so to act as to avoid such injury. Now, where a druggist sells medicine to one, is it not probable that it may be taken by others than his immediate purchaser; and if the wrong article and dangerous, is it not probable that others will receive injury? The conclusion reached is that apothecaries, druggists and all persons engaged in manufacturing, compounding or selling drugs, poisons or medicines, are required to be extraordinarily skilful and to use the highest degree of care known to practical men to prevent injury from the use of such articles and compounds. Where a druggist, or, as in this case, a merchant, sells a poisonous drug to one person, for a medicine which is harmless, by mistake, and it is taken for medicine, without negligence, by a third person, the seller is liable to such third person for damage resulting to him therefrom, notwithstanding there is no privity of contract between the seller and such third person.

Opinion as to Practice of Medicine—Sale of Device.—The Supreme Court of Illinois holds, in the case of People, to Use of State Board of Health, vs. Lehr, that a question was manifestly improper in which a physician was asked to state whether or not, in his opinion, a person prescribing a medical device, claiming that it would cure rheumatism, etc., would be regarded as practicing medicine, as the witness understood the term. The court says that the statute defines the practicing of medicine, and that it was for the jury, and not for a witness, even though he might be called an "expert," to say whether certain conduct amounted to the practice of medicine. In other words, this question sought to have the witness decide the very ultimate question which the jury had been sworn to try, and, consequently, an objection to it was properly sustained. Then it was asked that the jury be instructed that if it found from the evidence that the party charged with illegally practicing medicine prescribed a certain instrument or device to persons suffering from physical ailments, and recommended it as a means of cure or relief for such ailments, and that he did so without first obtaining a license therefor from the State Board of Health, then the jury should find him guilty and assess his fine as provided by statute. But this instruction, in view of the facts of the case, the court holds, did not correctly state the law. It says that the party did not "treat, or profess to treat, operate on or prescribe for any physical ailment, or any physical injury to or deformity of another." He simply offered and recommended the instrument or device in question for sale. He was practicing medicine, within the meaning of the statute, no more than is the druggist or pharmacist who sells and recommends surgical instruments, atomizers, and innumerable other appliances used by the afflicted. If this instruction should be held to announce the correct rule of law, then any neighbor or friend who might prescribe or recommend the use of a particular instrument or device would be guilty of a violation of the statute, which is certainly not in accord with the spirit of the statute or the intention of the legislature. The evidence not showing that he was an itinerant vendor of the device, he could not properly be convicted of violating section 8 of the statute, which provides "that any itinerant vendor of any drug, nostrum, ointment or appliance of any kind intended for the treatment of diseases or injury, who shall, by writing or printing, or any method, profess to cure or treat disease or deformity by any drug, nostrum or application, shall pay a license," etc., admitting that the device in question was an appliance, within the meaning of this statute. This, like all other penal statutes, must be strictly construed. The statute is a wise and humane one, and, within its reasonable construction, to be rigidly enforced; but any attempt to make it cover cases like this would be an abuse, rather than an enforcement of it.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Medical Record (N. Y.), May 24.

1 *Radiotherapy for Cancer and Other Diseases. William J. Morton.
2 *Benign Tumors Complicating Pregnancy. Bache M. E. Emmet.
3 *Malignancy Complicating the Pregnant State. S. Marx.
4 Uterine Displacements Complicating Pregnancy. Edward A. Ayers.
5 A New Substitute for Silver Nitrate. Albert C. Barnes and Hermann Hille.
6 Bilious Remittent Fever. R. H. Phillimore.

Boston Medical and Surgical Journal, May 22.

7 *Gunshot Wounds of the Knee-Joint by the Projectile of Reduced Caliber. Louis A. LaGarde.
8 Notes in Cuba. Charles C. Foster.
9 *Birth and Death-Rate as Influenced by Obstetric and Gynecic Progress. (Concluded.) George J. Engelmann.
10 Two Cases of Tetanus Following Vaccination. Lyman Allen.

Medical News (N. Y.), May 24.

11 *Consumption Contracted in Colorado and Methods to Restrict Its Spread. S. G. Bouney.
12 *The Treatment of Puerperal Eclampsia. William E. Parke.
13 *Venesection and Transfusion in Puerperal Eclampsia. R. Abrahams.
14 *Puerperal Hemorrhage. George Seymour.
15 *How Shall We Treat Sepsis Following Abortion or Labor? W. O. Henry.
16 *The Etiology of Puerperal Toxemia. A. Ernest Gallant.

American Medicine (Philadelphia), May 24.

17 *The Physical and Dietetic Treatment of Valvular Heart Disease During the Stage of Perfect Compensation. Carl von Noorden.
18 *Symptomatology, Diagnosis and Differential Diagnosis of Neuritis. Sydney Kuh.
19 *The Vermiform Appendix as a Cause of Intestinal Obstruction. J. E. Summers, Jr.
20 Electrothermic Hemostasis in Vaginal Hysterectomy for Cancer; Report of Two Cases. Andrew J. Downes.
21 Two Cases of Stenosis of the Pylorus. Frank M. Murdoch.
22 Contributions to Practical Therapeutics. Albert C. Barnes and Hermann Hille.
23 Suppurative Otitis Media and Some of Its Dangers. E. Oliver Belt.
24 The Differentiation of the Five Genera of North American Mosquitoes, with Especial Reference to Anopheles. Henry F. Cassidy and Francis C. Bayne.

Philadelphia Medical Journal, May 24.

25 *Note on the Occurrence of Ascites in Solid Abdominal Tumors. William Osler.
26 *On a Possible Cause of Meteorisms and Partial Intestinal Obstruction, with Remarks on the Use of Eserin in Intestinal Atony. Frederick A. Packard.
27 *Insufficientia Pylori as Sequela of Chronic Gastritis, with Report of Twelve Cases Successfully Treated. Mark I. Knapp.
28 *The "Fourth Disease" of Dukes, with Report of an Atypical Outbreak of Scarlet Fever. J. Hall Pleasants.
29 *A Discussion of the Morbid Conditions of the Upper Respiratory Tract, Resulting from the Infectious Diseases. Carolus M. Cobb.
30 An Unusual Case of Diphtheria. J. Newton Hunsberger and D. H. Bergey.

New York Medical Journal, May 24.

31 *The Pathology of the Tissue Changes Caused by the Roentgen Rays, with Special Reference to the Treatment of Malignant Growths. Carl Beck.
32 *Albumin in the Urine: A New Way of Applying Nitric Acid and Other Reagents. L. Napoleon Boston.
33 *Suprapubic Prostatectomy. Floyd W. McRae.
34 *Tracheal Injection in the Treatment of Bronchial and Lung Diseases. Larue D. Rockwell.

Cincinnati Lancet-Clinic, May 24.

35 Report of a Case Illustrated by Photographs. Derrick T. Vail.
36 Hepatitis Suppurativa. Julius H. Jacobson.
37 When I Studied Medicine. (Continued.) George J. Monroe.
38 A Case of Exophthalmic Goiter in a Girl of 11. Alfred Friedlander.

St. Louis Medical Review, May 24.

39 *Conservatism in the Treatment of Inflammatory Affections of the Uterine Adnexa. Hugo Ehrenfest.

Northwestern Lancet (Minneapolis), May 15.

40 A Case of Duodenal Ulcer, Stenosis of the Pylorus, Gastrectasia, Perforation and Death. George D. Head and A. E. Williams.
41 Varieties and Treatment of Hemiplegia. W. A. Jones.
42 Some Observations upon Corneal Ulceration Occurring in the Senile and Debilitated. H. McI. Morton.
43 Report of a Scarlet Fever Epidemic. E. D. Harrington.
44 Inflammation of the Pelvic Connective Tissue. J. H. Rishmiller.

Pediatrics (N. Y.), May 15.

45 Diphtheria. (Continued.) J. C. Cook.

Archives of Ophthalmology (New Rochelle, N. Y.), March.

46 *On the Protection of the Cornea in Some Sightless Stumps. H. Gifford.
47 A Case of Tumor of Optic-Nerve Sheath Removed by Krönlein's Method, with Preservation of the Eye and Good Vision. F. Antill Pockley.
48 Exophthalmos and Loss of an Eye Due to a Blow on the Temple, in a Patient Who Was the Subject of the Hemorrhagic Diathesis. Brown Pusey.
49 The Older and Newer Mydriatics, Miotics and Anesthetics in Ophthalmology. H. Schultz.
50 *The Cycloplegic and Mydriatic Actions of Atroscin and Scopolamin. Walter F. Macklin.
51 A Case of Leuco-Sarcoma of the Choroid. Albert B. McKee.
52 A Case of Acute Traumatic Glaucoma Without Visible Signs of the Injury. Ed. G. Rust.
53 Investigations on Eye-Magnets. Siegmund Türk.
54 Ulcus Rodens Cornæ. Dr. Hillemanns.
55 Insufficiency of Divergence as an Etiologic Factor in Concomitant Convergent Strabismus; Its Importance, Determination and Treatment. Herbert W. Wootton.
56 Systematic Report on the Progress of Ophthalmology in the Second Quarter of the Year, 1901. Prof. St. Bernheimer, O. Brecht, R. Greeff, C. Horstmann, and R. Schweigger.

American Practitioner and News (Louisville, Ky.), May 1.

57 Valedictory, University of Louisville. Earl R. Snyder.
58 The Improvement in Materia Medica and Therapeutics During the Past Century. John G. Cecil.
59 Nervous Dyspepsia or Gastric Neurasthenia. J. J. Moren.
60 Acute Articular Rheumatism. P. H. Crutchfield.

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61 Child Labor. Philip F. Barbour.
62 Laboratory Work in General Practice. Samuel E. Woody.
63 Gonorrheal Rheumatism. J. Douglas Westervelt.
64 When to Operate. A. T. McCormack.
65 Why Not Forestall Tuberculosis and Blot It from the Face of the Earth? James A. Burroughs.

Virginia Medical Semi-Monthly (Richmond), May 9.

66 Cancer Cases. Stuart McGuire.
67 Some Abdominal Cases in Women. R. S. Martin.
68 Clinical Observations on the Treatment of Chlorosis and Anemia and Pseudo-leukemia. L. A. Ewald.
69 The Practical Management of Smallpox. Llewellyn Eliot.
70 A Comparison of Typhoid Fever Mortality in Hospital and Private Practice. Arthur J. Hall.
70½ Neuralgia. George W. Day, Jr.

University of Pennsylvania Medical Bulletin (Philadelphia), April.

71 Concerning the Benzoyl Esters of the Urine in Diabetes Mellitus, and the Clinical Significance of an Excess of Glycosuronic Acid. D. L. Edsall.
72 Diagnosis by Means of the Formed Elements of the Blood. C. Y. White.
73 Memoir of the Late John Ashhurst, Jr., A.M., M.D., LL.D. Richard H. Harte.
74 Streptococcus Mucosus (Howard) and Its Relations to Micrococcus Lanceolatus. Warfield T. Longcope.
75 A Series of Twelve Articles on Medical Men Prominent in the Civil and Military Affairs of Revolutionary Times. Francis R. Packard.

May.

76 *The Intercommunicability of Human and Bovine Tuberculosis. Mazyck P. Ravenel.
77 A Contribution Concerning the Clinical Significance of the Readily Eliminable Sulphur of the Urine. David L. Edsall.
78 A Series of Twelve Articles on Medical Men Prominent in the Civil and Military Affairs of Revolutionary Times. Francis R. Packard.
79 Notes on Ten Years' Work of the University Ear Department. B. Alexander Randall.
80 A Case of Unusual Development of the Platysma Myoides. David Riesman and Horatio C. Wood, Jr.
81 A Male Presenting Certain Feminine Characteristics, with Hypoplasia of the Sexual Organs. Joseph Sailer.
82 On the Toxic Action of the Decomposition Products of Lecithin. Horatio C. Wood, Jr.

Chicago Medical Recorder, May 15.

83 Brief Reminiscences of the Origin and Growth of the Chicago Medical Society. N. S. Davis, Sr.
84 Organization of the Medical Profession. J. T. McAnally.
85 Fibroids of the Uterus and Broad Ligaments. Edwin Ricketts.
86 *Fallacies of Cystoscopy. Louis E. Schmidt.
87 A Case of Severe Anemia with Enlargement of the Spleen in an Infant. Frank S. Churchill.
88 *Deep Transverse Arrest of the Head as an Indication for Forceps. Charles B. Reed.
89 Lepra Maculoanesthetica. David Lieberthal.
90 A Case of Ichthyosis Hystrix. E. A. Fischkin.

Ophthalmic Record (Chicago), May.

91 A Compilation of Thirty-two Cases of Glaucoma Reported to the New England Ophthalmological Society Since Its Foundation; The Danger of Mydriasis. Myles Standish.
92 Saddle Bridge Eye-Glasses. Edward Jackson.
93 A Case of Free Cyst in the Anterior Chamber. R. Denig.
94 Further History of a Case of Fistulous Ulcer of the Cornea—Enucleation—Acute Grandular Conjunctivitis and Trachoma from Infection by Medium of Artificial Eye. H. V. Würdemann.
95 Simple Method of Suturing the Tendon in Enucleation. Frank C. Todd.

New Yorker Medicinische Monatsschrift, April.

96 Zur Operation der Nasenrachentumoren. F. Maass.
97 Atoxische Wundehandlung. C. L. Schleich.

Therapeutic Gazette (Detroit, Mich.), May 15.

98 *Acetozone (Benzyl-acetyl Hyperoxid) in the Treatment of Typhoid Fever. Eugene Wasdin.
99 *The Use of a Solution of Permanganate of Potassium in the Treatment of Purulent Ophthalmia. Howard F. Hansell.
100 *Sciatic Neuritis and Its Treatment. L. Harrison-Mettler.
101 The Practical Value of Intratracheal Medication. P. S. Donnellan.
102 Adrenalin a Valuable Aid in Surgical Work upon Mucous Surfaces. Flemming Carrow.
103 *The Use of Tuberculin in Medicine. Silvio von Ruck.

Pacific Medical Journal (San Francisco), May.

104 President's Address, Medical Society of the State of California. W. J. G. Dawson.
105 Address of Welcome, Medical Society of the State of California. Wm. Fitch Cheney.
106 Report of a Case of Anesthesia of the Retina. W. F. Southard.
107 A Plea for the Dental Profession; Revolution. J. Duncan Milliken.

Medical and Surgical Monitor (Indianapolis), May 15.

108 Mental Diseases of Children. Wm. B. Fletcher.
109 A Study in the Evolution and Psychology of Sex. (To be continued.) N. E. Aronstam.
110 Large Growths of the Posterior Tip of the Middle Turbinal. John F. Barnhill.
111 The Treatment of Broncho-Pneumonia in Children with the Cold Compress. Louis Burckhardt.
112 The Treatment of Gonorrheal Rheumatism. John A. Sutcliffe.

Physician and Surgeon (Detroit and Ann Arbor), February.

113 *New Views on Obstipation, Mucous Colitis, and Intestinal Autointoxication, with Demonstrations. Thomas C. Martin.
114 Intratracheal Injections in the Treatment of Bronchitis. Willis S. Anderson.
115 Some Reasons Why There Should Be a Hospital for Consumptives in Connection with the University Hospital. George Dock.

Indiana Medical Journal (Indianapolis), May.

116 Thoracic Aneurism of Large Size; Sudden Death; Autopsy. Henry Jameson.
117 Accidents and Complications Following Abdominal Operations and the Treatment; The Danger of Morphin. L. H. Dunning.
118 Gunshot Wounds of the Abdomen. Alois B. Graham.
119 Suppurative Disease of the Antrum of Highmore and Its Diagnosis. L. C. Cline.
120 The Country Doctor's Private Hospital; Letter of Advice to a Friend. J. C. Sexton.
121 Malpractice Suits. George H. F. Howe.
122 The So-called "Proud People" Subjects of Anal Reflex: A Phase of Hysteria. C. E. Wright.
123 Tubercular Empyema. Theodore Potter.
124 Post-operative Pruritus, with Report of a Case. William F. Clevenger.

Journal of Medicine and Science (Portland, Me.), May.

125 *Ablation of Both Mastoids, Followed by Extreme Variations in the Temperature of the Different Parts of the Body at the Same Time, and of the Whole Body at Different Times, Etc. E. E. Holt.
126 Iritis and the Importance of Its Early Recognition. J. F. Hill.
127 Foreign Bodies in the Eye. H. T. Clough.
128 Further Contributions on Hedonal. B. Tendlau.

Denver Medical Times, May.

129 Report of a Case of Exceedingly Rapid and Very Slow Respiration, with Pauses in Respiration Varying from Twenty Seconds to Two Minutes in Duration, in a Patient Suffering from Tubercular Meningitis, Syphilitic Periarteritis of the Pons and Medulla and from Hysteria. J. T. Eskridge.
130 Resection of the Superior and Middle Cervical Ganglia of the Sympathetic for Subacute Glaucoma. Melville Black.
131 Report of Seventy Cases of Acute Lobar Pneumonia. J. N. Hall.

Medical Herald (St. Joseph, Mo.), May.

132 Concussion Cataract—Report of a Case. J. W. Sherer.
133 Typhoid Fever. L. I. Shuck.
134 A Practical Presentation of an Unusual Case of Glaucoma. [illegible] Kenney.

Oklahoma Medical News-Journal, April.

135 Bilious Remittent Estivo-autumnal Fever. Ira B. Bartle.
136 Clinical Report of Two Cases (Pyosalpinx, Etc.). A. K. West.
137 Leukemia. L. N. Upjohn.
138 Remarks on Ferruginous Medication. Julian Marcuse.

May.

139 Therapeutics of Small Doses. J. A. Reck.
140 Report of Two Interesting Cases of Labor. J. E. Jordan.
141 Treatment of Gonorrhea. L. W. Palmer.
142 Gonorrheal Rheumatism. Douglas Westervelt.

Providence Medical Journal, May.

143 The Pauper Labor of Providence. F. T. Rogers.
144 Diagnosis and Treatment of Associated Diseases of the Gall-Bladder. Stephen A. Welch.

Merck's Archives (N. Y.), May.

145 *A New Use of Suprarenal Gland. Frank S. Meara.
146 An Index of Diseases Alphabetically Arranged, with Their Modern Treatment. (Continued.) G. Björkman.
147 The Medicinal Treatment of Malignant Tumors. Dr. von Boltenstern.
148 Gonorrheal Rheumatism. J. D. Westervelt.
149 The Antiseptic and Eliminative Treatment of Typhoid Fever. T. Virgil Hubbard.

Proceedings of the New York Pathological Society, February and March.

150 The Significance of Intramedullary Degenerations. M. G. Schlapp.
151 A Lymphocytozoon of the Guinea-pig. L. B. Goldhorn.
152 Paratyphoid Infections. Warren Coleman and B. H. Buxton.
153 A Demonstration of the Technic of the Determination of the Freezing Point of Body Fluids by Means of the Beckmann Apparatus. F. C. Wood.
154 Congenital Stenosis of the Aorta at the Isthmus. E. Libman.
155 A Case of Anthrax. L. T. Lewald.
156 A Case of Hodgkin's Disease. E. L. Dow.
157 Demonstration of Hemolysis. F. C. Wood.
158 Carcinoma of the Pancreas. A. E. Thayer.
159 Carcinomatous Ulceration of Duodenum, with Abscesses of Liver and Pancreas. John H. Larkin.
160 Multiple Emboli Mesenteric Arteries. C. Phillips.
161 Endothelioma of Serous Cavities. C. W. Field.
162 Complete Double Ureter of Each Side, Pervious Throughout. T. C. Janeway.
163 Two Cases of Lymphocytosis Simulating Leukemia. Francis C. Wood.

Kansas City Medical Record, May.

164 Gastroptosis. Emily A. Hill.
165 *The Treatment of Irreducible Backward Dislocation of the Astragalus by Opening the Joint and Repositing Same. W. Jepson.

Therapeutic Monthly (N. Y.), April.

166 On the Etiology, Prognosis and Modern Treatment of Tabes Dorsalis. Johann Hirschkron.
167 Bismuth-Borophenate as a Surgical Dressing. M. A. Auerbach.
168 Sanatoria for Poor Consumptive Patients in Switzerland. Theodore Zangger.
169 The True Suspended Position in Childbirth and the Question of Priority. George J. Engelmann.
170 The Management of Cases of Simple Nervous Insomnia. J. A. Evans.
171 Treatment of Fractures at the Lower End of the Radius. Fielding L. Taylor.
172 The Influence of Superstition in Therapeutic Doctrines. 1. The Doctrine of Signatures. Thomas L. Coley.
173 Chemical Changes in the Body in Which the Methyl Group May Be Involved. William J. Gies.

Nashville Journal of Medicine and Surgery, May.

174 *A Case of Traumatic Tetanus Treated with Beechwood Creosote Hypodermically. George Higginson.

Southern Medical Journal (La Grange, N. C.), May.

175 Medicine as It Relates to Dental Surgery, and Dental Surgery as It Relates to Medicine. E. J. Tucker.
176 Calomel, Its Uses and Abuses. C. W. Kellogg.
177 Eosolate of Quinin: A Clinical Study. J. W. P. Smithwick.

Fort Wayne Medical Journal, April.

178 *The Operative Treatment of Trachoma and Its Sequelæ. Albert E. Bulson, Jr.

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1. **Radiotherapy for Cancer.**—Morton concludes as follows: 1. Radiotherapy broadens our conceptions of the possibilities of the therapeutics of modern medical science. 2. The *x*-ray has a general application for the relief of pain. 3. As to technic, a standardization as to apparatus and its capacity, and as to duration and frequency of treatments and distance of the tube is recommended to operators. 4. The *x*-ray has a curative effect in internal cancer and other internal diseases. 5. For superficial diseases a medium soft tube may be used; for internal cases a hard tube. The hard tube is applicable, however, in all cases. 6. *X*-radiation is recommended prior to any operation, to clear the tissue of cancer particles and foci, and to circumscribe the disease. 7. *X*-radiation is recommended after operation to preclude a recurrence. 8. *X*-radiation may be recommended in place of an operation, and may be preferable to one for the reason that operation secures but a comparatively moderate percentage of permanent recoveries, and because up to date the *x*-ray procedure shows a continued improvement in cases, and a percentage of cures which will undoubtedly, compare favorably with surgical operation. 9. There is danger to the patient or uncertainty as to what might be accomplished when the *x*-ray is employed by immature operators. 10. In *x*-radiation we possess more nearly a solution of the problem of curing cancer than by any other method of treatment.

2. **Benign Tumors in Pregnancy.**—The various forms of non-malignant growths that may complicate pregnancy are noticed by Emmet. He enumerates the different forms, including deformities of the spleen, kidney and other viscera, bladder distension, calculus, ovarian tumors, fecal accumulations, exostoses about the pelvis, pus tubes, dermoids, etc. He favors operative treatment in case the tumor is accessible, in the non-pregnant woman, but if the woman has recently become pregnant, he would remove a fibroid of the uterus, if it were large, wherever situated. If it were slow growing and small he would leave it if in the body, but remove it if situated in the lower segment or neck. If the tumor only is discovered when half-way in pregnancy, he would leave it absolutely alone if in the body, but if in the lower segment or neck he would temporize, seeking to crowd it out of the pelvis, and try to tide over until the uterus had become thoroughly accustomed to pregnancy. In the late months he would deal only with those that grow in the neck and of sufficient size to impede delivery. Then he would operate from below. Even then he might possibly decide to await events or induce prematur[illegible] delivery. The tumors may be so general and threatening as to require the removal of the whole uterus even early in pregnancy and such contingencies have to be considered.

3. **Malignant Growths and Pregnancy.**—Marx thinks that in these instances the individual indications should be followed with the hope of saving the life of the child. He holds that deciduoma malignum occurs early in pregnancy.

7. **Gunshot Wounds of the Knee.**—La Garde reviews the more recent experiences in gunshot wounds of the knee as follows: (1) We find that the mortality of gunshot injury of the knee-joint in the Civil war was 53.7 per cent., and, as amputation was universally done, all those who recovered escaped with the loss of a limb, unfit for duty; (2) that 3[illegible] cases of gunshot wounds of the knee produced by the large caliber lead bullet in campaign, reported by Reyher and von Bergmann, treated antiseptically, gave a mortality of 11 per cent.; (3) that 62 cases produced by a variety of missiles reported by the surgeon general since 1898, similarly treated, gave a mortality of 8 per cent., and that 45.6 per cent. of those who recovered were restored to duty; (4) that of 19 cases in the Santiago campaign by the reduced-caliber bullet the mortality was *nil*, and that 73.6 per cent. of the wounded recovered fit for duty. It is thus seen that the humane features of the reduced-caliber bullet have operated not only

diminishing the mortality in gunshot injuries of the knee from about 8 or 11 per cent. to *nil*, but that it has increased restorations to duty 28 per cent., as shown by comparing the last two tables. The foregoing figures relating to the humane features of the reduced-caliber bullet established fully the predictions of von Coler, who said at the conclusion of his experiments with the German Mauser that if it be found that wounds by the small bore are aseptic, joint wounds will be the most favorable of all bone injuries to treat.

9. **Birth and Death Rate is Influenced by Obstetric and Gynecic Progress.**—Englemann says that the review of the figures clearly shows that obstetric and gynecic progress has left no very distinct impression on the vital statistics comparative to the decreasing death rate and the control of epidemics of the present day. The birth-rate is not increasing, it is decreasing. While still-births are decreasing in Europe it is not so in this country. The death rate in childbirth has been reduced somewhat by antiseptic practice, but less in this country than in Europe, notwithstanding the supremacy of midwives abroad. It is still far greater than it ought to be and while the results of modern hospital practice are shown, the splendid record of earlier years of the antiseptic era is not everywhere maintained, and in some of the leading maternities of the country the death rate is again increasing. There is a diminution in deaths from puerperal fever, but those from eclampsia seem to be more frequent. Taken altogether there seems to be some obstetric progress, but the figures are influenced by factors obscuring the influence of medical science. In the high death rate of the child in illegitimate labor, is given evidence of premature interference. In the decreasing fecundity we see the deteriorating influence of refinement, luxury, social aspirations, etc., and whatever the motive, the cause, he says, of diminishing fecundity is the intentional limitations of the family, and medical science yields to human vanity and its desires.

11. **Consumption Contracted in Colorado.**—Bonney discusses the statistics as to the indigenous occurrence of tuberculosis in the state and especially in relation to the report of the tuberculosis committee appointed a year or more back by the state society. He considers that the increase of tuberculosis mortality is incident to the increase in population, the unhealthy occupation of a portion of the population in mining, etc., to direct tuberculosis predisposition on the part of those whose parents came to the state suffering from tuberculous infection, and he questions somewhat whether the reference of the disease as being contracted within the state is always correct. He favors compulsory notification and restriction sufficient to the supervision, and the education of the consumptive and the public, establishing detention institutions for the ignorant and vicious who refuse to submit to the necessary sanitary rules, state sanatoria and segregation hospitals for the poor, the regular disinfection of tuberculous infected apartments, prohibition of expectoration, the formation of societies for the study and dissemination of information for the tuberculous and government supervision of public buildings, tenement houses, factories, etc. While not underestimating the possible dangers, he would have the education of the public rather encouraging than otherwise as regards the disease.

12. **Puerperal Eclampsia.**—After first reporting a case, Clarke discusses the theories of the prevention and treatment of this disease. For the former he would look for an easily digestible diet, with a minimum amount of nitrogenous matter, careful attention to elimination in all ways and suitable exercise. If all these fail he would anticipate labor. He thinks well of venesection as being of the greatest value in florid, full-blooded persons. Chloral or bromids are useful in the attacks and veratrum viride in the sthenic cases with the use of normal salt solution under the skin or in the bowel. He believes that accouchement forcé would save more children than allowing the labor to proceed during the convulsive seizures in the natural way.

13. **Puerperal Eclampsia.**—Abrahams recommends venesection and transfusion as important measures in puerperal eclampsia. He says the former causes an immediately favorable change in the woman's appearance; the cyanosis of the face; the rigidity of the muscles; the spasms and twitchings are stopped, and the pulse loses its tenseness, while the coma gradually and surely yields. Transfusion improves the pulse; induces free sweating and micturition; produces intense thirst in the awakened patient which causes her to drink copiously, and this is very desirable. The only precaution in regard to the use of blood-letting would be direct transfusion into the circulatory apparatus instead of waiting for its slower absorption by the bowel. He thinks venesection, as a rule, is indicated in nearly all classes of cases.

14. **Puerperal Hemorrhage.**—Seymour advocates Cesarean section in puerperal eclampsia when the mother is in good condition, uninfected, and not exhausted by long labor. The other forms of puerperal hemorrhage are noticed, with the proper measures to be employed.

15. **Puerperal Sepsis.**—The summary of the treatment of this condition is given by Henry as follows: 1. Remove early, with the finger, sharp curette and flushing, all débris, decidua, blood-clots and sloughing tissue which may be infected, from the uterus and from all raw surfaces of cervix, vagina and vulva. 2. Dry all of these raw surfaces and freely apply to them the 95 per cent. carbolic acid, washing away the surplus with sterile water. 3. Unless hemorrhage require, leave no tubes or packing of any kind in either vagina or uterus. 4. Have a simple carbolized, 2 per cent., vaginal douche used twice a day. 5. Open the bowels freely with calomel, ½ grain, every hour for four hours, to be followed by Rochelle salts until sufficient action has occurred. 6. Give quinin, 3 grains, every four hours, followed by tincture of the chlorid of iron, 15 drops, in water. 7. Give good nourishment, with milk, eggs and stimulants every four hours. 8. Let this be the routine early treatment. 9. When fixation of the uterus occurs and infiltration takes place in Douglas' cul-de-sac or in the broad ligaments, or when the tubes or ovaries fill with pus in acute cases, open promptly and drain through the vagina. 10. If multiple abscesses occur in the uterine walls, if the walls become badly infected, or if necessary in order to secure perfect drainage for a badly-infected pelvic cavity, remove the uterus and all else necessary by the vaginal route.

16. **Puerperal Toxemia.**—According to Gallant, puerperal toxemia is due to the implantation of pyogenic bacteria within the genital tract, before, during or after labor. They find there a proper culture soil of right temperature in which they thrive and multiply, producing substances which, when absorbed in the system, cause toxemia and give rise to the symptom-complex designated sapremia and septicemia. The introduction of these micro-organisms in the larger portion of cases (barring gonococcic cases) is an avoidable offense. Unfortunately, it is not rare; therefore, it is the duty of the nurse, student and physician when in charge of an obstetric case to practice thorough and conscientious asepsis.

17. **Valvular Heart Disease.**—One of the greatest therapeutic achievements of late years, according to von Noorden, is that of overthrowing the idea that absolute rest is required in cases of heart disease. The rules of treatment which von Noorden lays down are: 1. To avoid undue exercise in any case of palpitation of the heart or shortness of breath. Patients should not hurry or exert themselves or become mentally excited. Another important matter is the prevention of obesity which increases the heart's labor. In treating this condition we should act with the greatest caution. The arrangement of the dietary differs in every case and should be carefully studied by the physician. In every case where alteration in the weight of the patient is required it should be done slowly. There should be also a selection and proper distribution of the various items. Too copious meals should be always avoided and frequent and light meals are preferable. We can not recommend a permanently vegetarian diet: a reasonably mixed diet is best. Under no circumstances should the stomach be overloaded. The introduction of liquid must be likewise carefully watched. Too much must not be taken at meals. The total quantity allowed

daily is also of importance; a certain amount of restriction is often advantageous, and we should not allow the patient, for instance, as a rule, to drink more than 1¼ liters or 2¼ pints, avoiding strong infusions of tea, coffee and alcoholic beverages unless there is some therapeutic reason for their use. He does not absolutely forbid small quantities of stimulants, even tobacco, in patients with heart disease. Digitalis should be avoided in perfectly compensated cases. Muscular exercise should be advised; the best is slowly walking up hill where that is possible. He thinks rowing properly gauged is of advantage. Bicycling, tennis, golf and such sports invite excess. Room gymnastics have a limited value if not overdone, and massage has its limits of usefulness, but he is very much opposed to allowing a non-medical masseur to vibrate the heart. In patients whose hearts are very excitable and have a most disagreeable sensation at the slightest exertion, which makes the gymnastic treatment almost impossible, vibration is one of the best cardiac sedatives, and he uses a special apparatus for the purpose. Hydriatic treatment is also mentioned, and he speaks of the Nauheim baths as being specially valuable in recent cases, but it is bad practice for those with severe loss of compensation to take them. For the last two or three years he has used the electric baths after the system of Dr. Schnee, consisting of four porcelain tubes, in which the four extremities are immersed, the patient sitting in a comfortable chair. The momentary as well as the permanent effects are similar to those of the carbonated baths and the switchboard permits the use of the different forms of the current as desired.

18. **Neuritis.**—Kuh's article is a review of the subject in all its aspects, including the associated psychoses and trophic conditions which are associated with inflammation of the nerves.

19. **The Vermiform Appendix as a Cause of Intestinal Obstruction.**—Summers reports a case in which intestinal obstruction was caused by a constriction ring produced by the appendix adhering to the mesentery and notices other facts observed of this character, and mentioned by surgical authorities.

25. **Ascites in Abdominal Tumors.**—Osler has recently noticed a case and has compared statistics in the Johns Hopkins Hospital where there have been ten patients of this kind out of 9400 cases, all recovered after the operation. The condition is one to which the attention of the profession has not been specially called. The question of operation is an important one. A solid ovarian tumor is usually benign; the cases in Dr. Kelly's clinic all uniformly recovered.

26. **Intestinal Obstruction.**—Packard reports a case and calls attention to the possibility of the hitherto undescribed condition of an intestinal loop acting as a plumber's trap, producing intestinal obstruction. Such loops might follow adhesions from any inflammatory condition and might remain symptomless until the weakening of the intestinal walls from some cause or other led to accumulation of the contents of the loop sufficient to cause obstruction. In such cases it is doubtful whether remedies tending to render fluid the contents of the intestinal canal are of advantage and he is inclined to think that even they may cause a formation of such a loop in the paretic bowel. The latter part of his article deals with the action of eserin as an intestinal stimulant, with the report of cases in which it was effective in meteorism, and reviews the literature of such action of the drug. In these cases he gave 1/50 of a grain of sulphate of eserin every third or fourth hour. Other authorities have had good and permanent results with it. Von Noorden uses the salicylate of eserin on account of its advantage of preservation in the dry state and it is soluble in water. He says it can be best given in powder with milk sugar.

27. **Insufficientia Pylori.**—This condition is one in which no appreciable quantity of chyme can be aspirated one hour or less after Ewald's test meal, and whatever is aspirated is coarse in appearance. This condition of little or no chyme has usually been interpreted as indicating compensatory hypertrophy of the muscular coat. It usually is due, according to Knapp, to chronic catarrh and the normal closure of the pylorus is due to irritation of the mucous membrane. In the condition here discussed the stomach has become insensitive and there is no irritation to close the orifice. It ends in atrophy of the mucosa and may give no symptoms of the disease. The main phenomena relating entirely to interference with normal function of the intestines are such as headache, vertigo, nausea, intestinal discomfort, constipation, diarrhea, eructation, etc. The treatment depends on the stage of the disease; we should see if there is no gastric digestion present and how readily the stomach empties itself. The drugs used must be calomel, to aid the intestinal digestion, the combination of sodium and magnesium, rhubarb, ammonium chlorid, pancreatin and bile in the form of inspissated oxgall. These are about all the drugs necessary. If the stomach is empty immediately after eating, the drugs can be taken at once, but if there is still some digestion in the stomach they should be timed accordingly. He gives the diet for these cases, forbids the use of coffee and tea, rich cocoa, carbonic acid waters, alcoholics, white meats, beans and peas unless their cellulose covers are removed, turnips, spices, tomatoes in every form, everything prepared with vinegar, grapes, peaches, plums, prunes. Of fruits very little should be taken, and they must be peeled. Milk must not be permitted *ad lib.* He believes in thorough mastication and if the teeth are bad the food should be ground up. Half teaspoonful doses of sulphate of sodium in a glassful of hot water, taken hot, about half an hour before each meal, will clean the stomach. In diarrhea there is but one drug he has learned to rely upon, strychnia, beginning with 1/30 of a grain and running up to even 1/7 three times a day. It causes diminution in the number of stools and increases the consistency. His usual prescription is one-half a teaspoonful of sodium sulphate in a glass of hot water half an hour before meals and the following after meals:

℞. Natr. bicarbonate
Magnes. ust., āā 30
Pancreatin 5

M. Ft. pulv. D. Sig.: Teaspoonful after meals as directed.

How long after meals it should be given must be guided by the result of the examination. He reports twelve cases, all females but one, but he does not venture to say anything in regard to the relative frequency in the two sexes.

28. "**Fourth Disease.**"—Pleasants has had a number of cases under his care presenting symptoms suggesting "fourth disease" and analyzes the symptoms. He thinks that Dukes has not established the existence of any new exanthematous disease and that under his so-called "fourth disease" he has included cases of undoubted scarlet fever and probably cases also of rubella. In certain epidemics scarlet fever may present an atypical picture, with many of the classical symptoms absent, rendering a diagnosis difficult or impossible in isolated cases, and a satisfactory classification of exanthematous diseases is hardly to be hoped for until we know more of their etiology. In the meantime we should be slow in accepting new diseases.

29.—See abstract in THE JOURNAL, xxxvii, p. 851.

31. **The Roentgen Rays.**—The tissue changes caused by the Roentgen rays with the various grades of *x*-ray burns, are mentioned by Beck, who points out that the characteristic difference between them and ordinary burns is the incubation period in *x*-ray burns. The special point of his paper is the action of these rays in integumental and other malignant disease, which he claims is in the nature of a chronic inflammation. The nutrition of the superficial strata is disturbed, a cell starvation is produced, and if overirradiation is continued, necrosis may result. In this way we understand the curative effect in lupus, carcinoma and sarcoma, especially if they are confined to the integument. We should consider the use of this agency not only in the cure of disease, but in the after-treatment of surgically treated cases. The carcinoma cells, which are often left in the tissues and which can not be reached by the knife, may be the cause of further malignant growths. He remarks that even when cure can not be obtained the influence of the rays may be beneficial in influencing pain, etc., illustrating this fact by the report of cases where the adenosarcomatous growth had reappeared following removal, causing great

pain and extending deeply into the tissues. In such cases the hard tubes must be chosen, while in skin neoplasms soft tubes are preferable. His observations suggest to him the use of the *x*-ray as soon as possible after the removal of the neoplasms and kept up for a period of several weeks. It is advisable to expose for only five minutes at first and after a week for about ten. If after the third exposure two weeks after the first, no reaction follows, the application may be made two or three times daily and at last daily unless reaction shows. During the tentative exposures, the distance of the tube should be four inches, later on it may be one inch only. He has seen no harm from direct contact. He does not favor the use of a shield in neoplasms as the influence of the ray should be extended as far as possible. During the interval between the application xeroform salve (1 to 10 of lanolin) should be employed.

32. **Albuminuria.**—The new method described by Boston consists in using a pipette which he dips into the urine a short distance and closing the top with the finger extracts a small portion. He then washes the outside of the pipette off carefully with water and dries it and then inserts it in a bottle of nitric acid. Slight removal of the finger tends to allow the acid to float the urine up in the pipette, the usual reaction occurring at once at the junction of the two liquids. He believes that this method is better than the usual methods of employing Heller's test. The different reactions of serum albumin, mucin, globulin, urates, uric acid, indican, etc., are described as also other tests and reagents that are used.

33.—See abstract in THE JOURNAL, xxxvii, p. 1481.

34. **Tracheal Injection.**—Rockwell favors the use of the tracheal method of introducing medicines in bronchial and lung diseases, reporting cases where it appeared to be the most effective method. He asks why we should make the stomach the sole distributing point for remedies intended for all parts of the body when we have the right of way by a shorter route.

39. **Inflammatory Diseases of the Adnexa.**—Ehrenfest pleads for conservative treatment in these conditions and concludes that the conservative non-surgical treatment will give good results in almost all cases of acute or chronic non-suppurative inflammations of the uterine adnexa. In suppurative cases the non-operative treatment should be tried, unless symptoms make operation imperative. It gives usually comparatively good results among the well-to-do, but unsatisfactory ones among the patients of the working classes. If operation is decided on the radical operation will be the operation of choice and vaginal drainage the method of necessity. For radical operation the vaginal route should be always given preference.

46. **Protection of the Cornea.**—Gifford employs a method of covering the cornea in sightless stumps in certain cases where the corneal tissue remains and is likely to cause irritation, by the use of conjunctival flaps, the Thiersch flap, or an epithelial lip flap. In most cases where the conjunctiva is used the membrane is excised around the lower half of the cornea for an area about 3/16 of an inch wide at the sides, and 1/8 inch below. Above this zone the membrane is dissected free from the globe as far as the upper fornix, in the neighborhood of which a cross cut is made through the membrane to allow it to be slid down over the cornea without putting too much tension on it. Three sutures below are generally sufficient, but these should be put well into the episcleral tissue nearly as deeply as in the advancement of one of the straight muscles. Dissecting up the conjunctiva both above and below and sewing it together in a straight line across the center of the cornea has not been successful in his hands. If the conjunctiva is atrophic and the space for an artificial eye be too much limited by the operation just described, he uses the epithelial lip flap, a thin flap shaved from the lip with a razor, or the Thiersch flap, dissecting up the epithelium for 1/8 of an inch around the cornea and scraping the latter (taking special care in the neighborhood of the limbus), the flap is spread out carefully over the cornea and tucked under loose conjunctiva on all sides. It is well to bandage both eyes for twenty-four hours after these operations. He has used the Thiersch flap once, but the accumulation of deep epidermis on its surface caused some irritation and he then scraped the skin flap off and substituted a lip flap for it. He thinks, however, with certain precautions this method might succeed.

50. **Atroscin and I-Scopolamin.**—Macklin has investigated these drugs and gives in tabulated form the results with a 1 per cent. solution in castor oil. He finds these rapid and powerful mydriatics, and as cycloplegics they are as potent and reliable as atropin sulphate, while the power of accommodation returns in five days. The advantages of the oily solution are: 1. Only one application is required. 2. More rapid and certain action of the drug. The table shows that mydriasis begins in ten minutes and is complete in twenty. 2. Cycloplegia begins in ten minutes and is complete in about fifty (average). 3. The power of accommodation returns to normal in five days (with occasional slight variations). The drugs never fail to give him satisfactory results and he thinks that ought to always be used in preference to homatropin in school children and all other persons with active accommodation who can possibly afford the necessary five days' time.

76. **Human and Bovine Tuberculosis.**—Ravenel's article is a very important one containing numerous experimental observations and reporting several cases. He thinks that we can, in the absence of evidence otherwise, assume that bovine tuberculosis is virulent to the human species and rather believes that we ought not to entirely exclude bovine infection even in those cases where the abdominal organs yield a culture of feeble virulence, as we know nothing about the effect produced on the bovine bacillus by prolonged residence in the human body. It is at least possible, he holds, for it to become radically changed in the human body so that it will show the cultural and pathologic peculiarities of the human type. His conclusion is that the human and bovine tuberculosis are slightly different manifestations of the same disease, and that they are intercommunicable. Bovine tuberculosis is therefore a menace to public health, to what extent is impossible to determine, but its existence cannot be denied. In the past the tendency has been to exaggerate, but this does not justify us in belittling the risk, and it is folly to blind ourselves to it.

86. **Cystoscopy.**—Schmidt first notes the popularity of the cystoscope at the present time, and then points out what he thinks are some of the fallacies or errors that are likely to be met in its use. We should never be satisfied with the results of trigonum examination unless all the views taken from the different positions of the cystoscopic beak are uniform in their general features. It is not uncommon that a portion of the free plane of the prism is covered by a fold of the urethral mucosa, and the whole field of view is covered with a reddish tinge, giving the idea of inflammation which does not exist. Another thing that leads to error is the fact that the ureteral openings lie in different cases at entirely different distances from the urethral orifice, and they are often overlooked because they are almost hidden in the folds, and the cystoscope is pushed far into the viscus in the search for the ureteral openings, while the prism has already passed them. In cases of inflammation or edema it may be very difficult to find the openings and damage may be done to the patient by poking around and because the cystoscope fails to detect the opening. If there is any doubt as to whether one of the probable ureteral openings or niches is in fact the ureteral entrance, the finger may be introduced either into the vagina in the female or the rectum in the male, and this finger presses the doubtful area toward the cystoscopic window, exposing the bottom of the niche to make possible the decision whether in its depth the ureteral opening is to be found or not. In case the niche can not be observed there is nothing to do but to watch carefully the symmetric area or the place where it ought to be in relation to the other ureter and watch for the flow of urine. This can be facilitated by giving the patient methylene blue some time before the examination. There are also other sources of error in the examination of the internal urethral orifice. The parts are seen when they are very close to the cystoscopic window and are magnified and there are, moreover, changes in the formation and appearances by the introduction of rigid straight instruments of considerable size. Often either

hypertrophied or edematous folds of the internal urethral orifice have imposed upon the observer as tumors or polypi. They are, however, usually multiple and not transparent like polypus. The use of the cystoscope as a preliminary to the Bottini operation is an important matter and he calls attention to the dangers. We should notice the following points to make sure that the barrier belongs to the bladder and can be safely operated on. The protrusion and elevation into the viscus must appear as covered with bladder mucosa and not with the urethral mucosa. The bas fond behind the barrier must be a deep one. If the ureteral orifices can not be seen, there is always cause for suspicion that the tumor was pushed into the bladder. Frequently a mistake is made in the diagnosis of a trabeculated bladder, caused by contraction due to the touch of the beak or heat of the lamp and the trabeculated bladder should be diagnosed only when the trabeculation is a uniform one, all over the fundus and vertex, and when examination of the different parts proves that the protrusion of muscular bundles is a constant one. Edema bullosum is a condition which leads to erroneous diagnosis and tumors which are covered with incrustrations are sometimes taken for calculi; pedunculated tumors, which cover their pedicle, may be considered malignant on account of their broad base. Varicosed nodules occasionally present themselves as tumors. He specially calls attention to the diagnosis of cystoscopic burns as idiopathic ulcers. They, however, heal up in ten or fourteen days, which is never the case with actual ulcers.

88. **Transverse Arrest of the Head.**—Reed summarizes as follows: Deep transverse arrest of the head is a relatively common complication in labor. The diagnosis is easily made from the position of the sagittal suture and the fontanelles. The normal termination of the case can not be awaited in most instances, but forceps should be applied as soon as it is evident that rotation will not occur spontaneously. The blades should be applied in that pelvic oblique diameter toward which the occiput lies. Location of the occiput must be determined before the blades are applied. Traction and rotation must be simultaneous.

98. **Acetozone.**—This substance, benzoyl-acetyl-peroxid, which is also called benzozone, is found a most efficient antiseptic by Wasdin, who says we may conclude: 1. That the peroxid is sufficiently germicidal under conditions favoring its hydrolyzation. 2. That it is innocuous to man and animals, being readily secreted through the kidneys as hippuric acid. 3. That in the treatment of typhoid fever and other bacillary diseases it is directly applicable to destroy the primary colony, provided it can be brought into contact with it. 4. That its special application in typhoid fever enables us to obviate intestinal infection and absorptive toxemia therefrom, thus favoring the formation of protective anti-bodies and limiting, in many cases, the disease to its normal cycle. 5. That in those cases of inefficient reaction in typhoid fever its use tends to make the patient much less uncomfortable, thereby offering better results from appropriate serum therapy.

99. **Purulent Ophthalmia.**—Hansell employs a solution of permanganate of potassium in the treatment of purulent ophthalmia and notices the details. He does not make this solution stronger than 1:600, but employs it in this strength in those severe cases in which the discharge is thick, yellowish and abundant, and the gonococci are abundant, irrigating the eye by means of a nozzle attached to a rubber douche bag, guiding the solution into all portions of the conjunctival sac, and allowing it to discharge over the face on a rubber sheet and then into a receptacle. He repeats this every twenty minutes during the first twenty-four hours, when, if the discharge is lessened, the strength is reduced and the intervals increased. It should be done with a gradually weakened solution up to 1:2000 as long as pus is found in the conjunctiva. He thinks other remedies he has employed, boric acid, bichlorid, formalin, etc., are inferior as germicides or as curative agents to the permanganate.

100. **Sciatic Neuritis.**—Mettler maintains that sciatica is always a neuritis, and that there is no such thing as purely functional neuralgia in these cases. Counter-irritation, even to actual cauterization, the use of vasomotor sedatives internally, cathartics, diuretics and diaphoretics are the chief measures to be depended on in the subacute and acute stages. Analgesics, narcotics and sensory depressants produce less permanent results in sciatica than they do in other forms of neuralgia, doubtless because they do not affect the organic changes underlying the trouble. Absolute and general rest even to the point of strapping the limbs if necessary is the sine qua non of the acute stage. He uses salicylates and colchicum. Nerve-stretching may possibly do some good by breaking up old adhesions and restoring the circulation. In the chronic stage he prefers the subcutaneous use of strychnia in dose of 1/70 to 1/20 of a grain twice daily. Massage, baths and the steady use of mild currents of electricity should be also employed.

103. **Tuberculin.**—Von Ruck defends the use of tuberculin as a diagnostic agent and claims that if properly used it is not dangerous. As a therapeutic measure, he also advocates it and claims that the very best results have been obtained. Those who have failed should consider that the successful employment of tuberculin, both as a diagnostic and therapeutic agent, implies something more than the routine of giving hypodermic injections and if they give the same amount of study to this as they do to other subjects in medicine they would find in it a most favorable adjuvant in the diagnosis and treatment of tuberculosis.

113. **Rectal Valves.**—Martin defends his assertions as to the existence of rectal valves, describes their anatomy and function and their action in producing constipation when they are abnormal. Hypertrophy of the rectal valves should be recognized as the initial step in the formation of stricture. The treatment of valvular obstipation consists in instrumental massage of the obstruction by means of cotton-covered forceps through the proctoscope and spraying the intestinal tract with a solution of nitrate of silver and rectal irrigation by means of saline solutions in a temperature of from 120 to 140. In such cases the anus should be protected by the proctoscope and the patient be cautioned not to lie on his back or to ride in a carriage or on a street car, which would tend to the congestion of the parts.

125. **High Temperature.**—The title of this article explains it, but the details are interesting. The patient appeared to have been somewhat hysterical; the thermometer ranged from 114 to 94 at different periods. The observation was made by a number of physicians in the Maine Eye and Ear Infirmary. The patient was a young woman 21 years of age in whom there was no special disturbance or general symptoms to account for the abnormal temperature. After the operations the temperature remained normal for some time and, therefore, they can hardly be held responsible in their immediate effects. There was certainly some disturbance of the heat-controlling centers, but how is a mystery. The impression of those observing her was that she was hysterical and this only can be given to account for the condition observed.

145. **The Suprarenal Gland.**—A new use of the suprarenal gland here suggested by Meara is the application of a strong preparation to the mucous membrane in pruritus vulvi and ani. He reports cases in which the treatment was a great success.

165. **Dislocation of the Astragalus.**—After reporting a case, as indicated in the title, Jepson says that his own experience and the results of recorded cases lead him to believe that it would be rarely possible with our present knowledge and technic to bring about a reduction of a backward dislocation of the astragalus without opening the joint and bringing about a reposition of the bone by direct manipulation. With our present command of aseptic surgery he sees no reason why this should not be undertaken in all cases uncomplicated by severe infection with good prospects of securing a nearly perfect result. Removal of the astragalus may be reserved for such cases where the bone is completely separated from its ligamentous attachments, consequently having no adequate source of blood-supply. Amputation should be resorted to only in such cases where the dislocation is compound and infected to a degree impossible

of removal, and the patient's life jeopardized by the septic intoxication or infection.

174. **Tetanus.**—In the case described by Higginson, antitoxin and carbolic acid treatment both failed and he started to use creosote in large doses. Twenty minims of beechwood creosote (Merck) was administered in a dram of olive oil, hypodermically, morning and evening, still using chloral and morphin. Benefit was observed in a short time and the treatment was continued for twenty days, diminishing the dose of creosote daily. The patient was then able to stand up, but some rigidity persisted, but after a rather slow convalescence the patient was entirely well and regained his flesh and strength in three months. In no case did the creosote produce any untoward symptoms and at no time during its administration was the urine rendered dark or smoky.

178. **Trachoma.**—The only proper treatment for trachoma in Bulson's opinion is the surgical one and he has found a modification of Knapp's operation, consisting in thoroughly scarifying the larger and thicker masses of trachomatous tissue and then applying the roller forceps, most useful. The scarifying renders it easier to express the follicles without excessive mangling of tissue and possible unnecessary destruction of conjunctiva through the forcible pressure exerted. Following the roller treatment the brushing treatment with 1 to 500 bichlorid solution may be employed, but with less vigor than advocated by Fox and others in the performance of the regular grattage operation. Of course, operative treatment is not applicable to the acute inflammatory type of the disease nor to the exacerbations of the chronic stage which should be treated only with cold applications and antiseptics. In all cases the operation should be supplemented by medicinal applications and rigid attendance to hygiene. The sequelæ of trachoma are also mentioned and he thinks that in entropion the Hotz operation is really the best. Of course, any treatment applies only to cases that have not gone too far and produced structural alteration beyond the possibility of securing absorption in the corneal infiltrates which obscure vision.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below.

British Medical Journal (London), May 17.

1 *A Clinical Lecture on Dysmenorrhea. G. Ernest Herman.
2 *The Problem of the Premature Infant. J. W. Ballantyne.
3 *An Analysis of Forty-six Cases of Cancer of the Breast Which Have Been Operated upon and Survived the Operation from 5 to 32 Years. Thomas Bryant.
4 *A Note on the Operation for Removal of Malignant Disease of the Breast. Douglas Drew.
5 Case of Vesico-vaginal Fistula Cured by a Method Believed to Be New. Frederick J. McCann.
6 A Case of Premature Senility of the Uterus. Augustus W. Addinsell.
7 Case of Inversion of the Uterus. Cecil G. Hoysted.

The Lancet (London), May 17.

8 *The Nature of Discharges and Douches. Wyatt Wingrave.
9 Septic Polyarteritis. G. A. Wright.
10 The Diagnosis of Malaria from the Standpoint of the Practitioner in England. Patrick Manson.
11 *Remarks on the Subsequent History of Children Born Whilst the Mother Was Insane. A. F. Tredgold.
12 Liquid Air as a Freezing Medium in the Laboratory. W. H. B. Stoddart.
13 *Some of the Surgical Aspects of Glycosuria and Diabetes. (Continued.) Llewellyn C. P. Phillips.
14 Some Notes from an Inquiry into the Action of Dinitro-benzene upon the Urine of Man, and Experiments Proving the Innocuousness of Dinitro-toluene upon Animals. R. Prosser White, John Hay and W. J. Orsman.

The Practitioner (London), May.

15 *Observations on the Clinical Course of Pulmonary Tuberculosis as Affected by Modern Methods of Treatment. R. W. Phillip.
16 Acute Anterior Poliomyelitis: Infantile Paralysis and Acute Atrophic Paralysis of the Adult. R. T. Williamson.
17 A Case of Removal of the Gasserian Ganglion by Doyen's Method (Modified). William Rose.

Annales Med.-Chir. de Liege, January and February.

18 *Childbirth in Deformed Pelvis. Heuze.—De l'accouchement dans le bassin plat rachitique de 9.5 à 8.5 cm.
19 Nursling Consultations. H. Lambinon.—Consultation des nourissons à la Maternité de Liège.
20 Traitement de l'hypertrophie de la prostate par l'opération de Bottini. Renard-Dethy.

Presse Medicale (Paris), May 3 to 14.

21 (No. 36.) *Les complications orbito-oculaires des sinusites. F. de Lapersonne.
22 Corpuscles vaccinaux de Guarnieri. R. Romme.
23 (No. 37.) *Traitement des anévrismes de la crosse de l'aorte. A. Guinard.
24 (No. 38.) Purpura métamérique. H. Roger.
25 Traitement des sténoses fibreuses du larynx. Collinet.
26 Traitement des maladies de la peau. La méthode aseptique. L. V. Leredde.
27 (No. 39.) La mélancolie intermittente. G. Ballet.
28 *Les indications thérap. dans le tic douloureux de la face. Chipault and A. F. Plicque.

Revue de Chirurgie (Paris), May.

29 *Les monstres doubles autositaires, opérés et opérables. Marcel Baudouin (Paris).
30 *La solution salée sodique en chirurgie. E. Tavel (Berne).
31 *Sur un nouveau procédé opératoire des hemorroides. J. Potarca (Crajova, Roumania).

Semaine Medicale (Paris), May 7 and 14.

32 De la sténose hypertrophique du pylore (linite plastique à localisation pylorique; maladie fibroide du pylore; gastrite hypertrophique sténosante). Oettinger (Paris).
33 Are the Anopheles the Only Agents of the Transmission of Malaria? G. M. de Francesco (Monteleone di Calabria).—Les anophèles sont-ils les agents uniques et indispensables de la transmission du paludisme?

Deutsche Med. Wochenschrift (Leipsic), May 8.

34 Die Entwickelung und die Aufgaben der orthopädischen Chirurgie. A. Hoffa (Berlin).
35 *Acute Atrophy of the Bones After Inflammations and Traumatisms of the Extremities. O. Sudeck (Hamburg).—Ueber die akute (trophoneurotische) Knochenatrophie nach Entzündungen und Traumen der Extremitäten.
36 *Die abortive Behandlung des Furunkels (Karbunkels) mit Hilfe subkutaner Desinfektion. A. Bidder (Berlin).
37 The Speech of Persons Deaf or Hard of Hearing. H. Gutzmann.—Ueber die Sprache der Schwerhörigen und Ertaubten.
38 Fall von conservativer Behandlung diabetischer Gangrän. Hartmann (Cassel).
39 *Cancer Research.—Comité für Krebsforschung.

Klin.-Therap. Wochenschrift (Vienna), April 13 to May 11.

40 (Nos. 16 and 17.) Die Musik als Heilmittel. A. Bruck.
41 *Practical Application of Hemolysis in Therapeutics. Von Niessen (Wiesbaden).—Beitrag zur Beurtheilung der Haemolyse.
42 *Advantages of Artificial Mineral Waters. W. Jaworski (Cracow).—Ueber rationelle Zusammensetzung und ther. Verwendung der Mineralheilwässer und der Heilbäder für Sommercuren.
43 (Nos. 18 and 19.) Behandlung der Lungentuberkulose durch Bakterien, deren Producte und Serotherapie. A. v. Weismayr (Alland).

Monatshefte f. Prakt. Derm. (Hamburg), February 1 to May 1.

44 (No. 3.) *Ueber die Aetiologie und Prophylaxe der merkuriellen Stomatitis und Proktitis. M. Bockhart (Wiesbaden).
45 Tar Vasogen. J. A. Goldmann (Vienna).—Die therapeutische Verwendung des "Teervasogen."
46 (No. 4.) *Stypticin als lokales Haemostaticum. R. Kaufmann (Frankfurt a. M.).
47 *Treatment of Leukoplakia Bucco-lingualis. M. Bockhart (Wiesbaden).
48 (No. 5.) Beitraege zur Kenntniss der Urticaria pigmentosa. L. Blumer (Zurich).
49 *Action of Alkaline Iodids on Patients Deprived of Salt. J. Sellei (Budapest).—Die Wirkung der Jodalkalien bei chlorfreier Diät.
50 *Die Massage der Urethra. Berger (Berlin).
51 (No. 6.) Fall von Acanthosis nigricans. P. A. Pawlof (Moscow).
52 Almkvist's Plasma Cells. P. G. Unna (Hamburg).—Die Alkvist'schen Plasmazellen.
53 (No. 7.) Spontaneous and Cicatricial Keloid. C. Berliner (Aix).—Ueber spont. und Narbenkeloide.
54 Treatment of Gonorrhea. P. Taenzer (Bremen).—Zur Behandlung der Blenorrhoe.
55 (No. 8.) New Research on the Staining of Collagen. P. G. Unna.—Neue Untersuchungen ueber Kollagenfärbung.
56 Ueber Pruritus localis nach internem Arsenikgebrauch. E. Doctor (Frankfurt a. M.).
57 (No. 9.) Fat Secreting Glands in the Mouth. Colombini (Sassari).—Ueber einige fettsecernierende Drüsen der Mundschleimhaut des Menschen.
58 Remarks on the Current Receipts for Stains. P. G. Unna.—Einiges ueber unsere Färberezepte.

Muenchener Med. Wochenschrift, May 6.

59 *Spinal Analgesia and the Distribution of the Sensibility According to Segments of the Spinal Cord. F. Neugebauer.—Rückenmarksanalgesie und die Vertheilung der Sensibilität nach Markssegmenten.
60 *Fall von Lungenembolie bei Placenta previa. J. Voigt (Dresden).
61 *Senile Angiomata of the Skin. J. Raff (Augsburg).—Zur Kenntniss der senilen Angiome der Haut.
62 Fall von Perforationsperitonitis geheilt durch Laparotomie. Federschmidt.
63 *Study of 400 Cases of Hay Fever. A. Thost (Hamburg).—Ueber das Heufieber. (Concluded from No. 17.)
64 *Behavior of White Corpuscles in Surgical Affections. M. Wassermann.—Ueber das Verhalten der weissen Blutkörperchen bei einigen chir. Erkrankungen, insb. bei Appendicitis. (Concluded from No. 17.)

Wiener Klin. Wochenschrift, April 24 to May 15.

65 (No. 17.) Zur Frage der Arsenik-Dermatosen. Rille (Innsbruck).

66 *Treatment of Venereal Ulcer with Cold. A. Brandweiner (Vienna).—Behandlung des venerischen Geschwüres mit Kälte.
67 Animalische Effecte der Electricität. S. Jellinek. (Concluded from No. 16.)
68 (No. 18.) *Pathology of the Metabolism. E. Freund (Vienna).—Leistungen und Bestrebungen in der Stoffwechsel-Pathologie. (Concluded in No. 19.)
69 Influence of Condiments on Gastric Functions. V. Korczynski (Cracow).—Ueber den Einfluss der Gewürze auf die sec. und mot. Thätigkeit des Magens.
70 Bisherige Erfahrungen ueber Trachombehandlung mit Cuprocitrol nebst einigen Bemerkung ueber Itrol Credé. V. Arlt (Graz).
71 *Tests of Antiseptics for the Urine. O. Sachs.—Experimentelle Untersuchungen ueber Harnantiseptica. (Concluded from No. 17.)
72 (No. 19.) Ileocecal Valve. O. Kraus (Carlsbad).—Zur Anatomie der Ileocöcalklappe.
73 Ueber die Insufficienz der Valvula ileocoecalis. H. Weiss (Vienna). (Concluded in No. 20.)
74 (No. 20.) Zur Histogenese der sog. Krukenberg'schen Ovarialtumoren. G. A. Wagner (Vienna).
75 Myoma teleangiectodes uteri mit reinen Myommetastasen in der Leber und den Lungen. F. Schlagenhaufter.
76 Ueber die Agglutinationskraft und den Bacterienbefund in Föten typhuskranker Mütter. L. Jehle (Vienna).

Giornale Accad. di Med. (Turin), February.

77 *Sopra una Nuova Specie d'Immunita. T. Carbone (Modena).
78 Della tensione superficiale nei liquidi sierosi dell' organismo. E. Buffa.
79 *Alterazioni della Sensibilita cutanea nelle Lesioni Viscerali. E. Tedeschi.
80 Influenza della Eucaina-B sugli Organi gustativi. A. Fontana.

St. Petersburger Med. Wochenschrift, March 30 to May 3.

81 (No. 11.) *Ueber die Diazo-Reaction. M. Johnson.
82 (No. 12.) Die tuberkulöse Spondylitis und die Ausgleichung des Pottschen Buckels. J. Finck (Kharkov).
83 (No. 14.) Delirium Tremens from Abuse of Paraldehyd. A. Behr (Riga).—Beitrag zur Casuistik der Paraldehydelirien und Bemerkungen ueber die Trunksucht der Frauen besserer Stände.
84 (No. 15.) *Zur Prophylaxe des septischen Scharlachs. W. Sohn.
85 Die neuesten Forschungen ueber die Pseudo-Tuberkelbacillen. S. Unterberger.

Cronica Medica (Lima), January to March 31.

86 (No. 316.) La mortalidad por fiebre tifoidea en Lima.
87 (No. 317.) Un caso de raqui-quininizacion. E. E. Escomel.

Gaceta Medica (Mexico), February to April.

88 (Nos. 7 and 8.) *Demostracion de la existencia la fiebre tifoidea en Mexico (Capital). A. Gavino.

Revista Centro Med. de Cordoba (Argentina), ii, 6 and 7.

89 *El suero antidifterico en la fiebre tifoidea. B. J. Yanez.
90 *Hot Air in Treatment of Nasal Hydrorrhea. I. Garaizabal.—Tratamiento de la hidrorrhea nasal por el aire caliente.

Revista Medica de Bogota, xxiii, 258.

91 *Profilaxis de la fiebre tifoidea. J. Barreneche.
92 Raquicocainizacion. G. Gomez.

Semana Medica (Buenos Ayres), February 27 to April 10.

93 (No. 9.) *Discusion de las teorias sobre las causas del ozena. R. Razquin.
94 *La atrofia general infantil y las inyecciones de suero artificial. A. M. Vargas.
95 (No. 11.) Tuberculosis of Cecum. M. L. Sanguinetti.—Sintomatologia, diagnostico y pronostico de la tuberculosis del ciego.
96 (No. 12.) *Serum Treatment of Malignant Anthrax. W. E. Escudero.—Tres casos de carbunclo tratados por el suero Mendez.

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1. **Dysmenorrhea.**—There are two causes of pain in menstruation, in one case it is due to the physiologic congestion of the organs preceding the discharge, in the other to the contraction of the uterus. The former is the discomfort commonly felt by the majority of women. There is one special morbid condition which produces abnormal congestion. If the uterus is bent back and the utero-sacral ligaments are well marked and firm, the veins which return the blood from the corpus will be pressed on and the return of blood be hindered, producing pain both at menstruation and at other times as well. In some cases the pain is referred to the ovaries, but ovarian menstruation has been used as a name, not as an explanation of the case. The severity of the pain depends not only on the local cause but upon the imagination and sensitiveness of the patient. A correct account of these feelings is not always given. The contraction pains are little felt in most women, but in a few they are painful. Actual obstruction is caused rarely from obstruction in the canal. Sometimes the endometrium, instead of breaking down, is shed in large pieces; this may cause obstruction. This special menstruation disorder is rather common, according to Herman. Anteflexion he does not believe is often the cause of pain and stricture of the os externum is never seen except in diagrams. There is little evidence in his mind as to the incomplete development of the uterus being the cause of dysmenorrhea. In most of these spasmodic cases the function commences at the usual age and it has been in his experience quite exceptional to find the uterus comparatively smaller than it ought to be in spasmodic dysmenorrhea. In some of the worst cases there is neither narrowing of the canal nor the passage of membrane. The disorder usually begins before twenty-five years of age, but may begin later. With our present means of investigation there must be a certain amount of unavoidable error in the diagnosis of dysmenorrhea attacks. We have no means of definitely determining the character of the pain or even its presence. The pain of spasmodic dysmenorrhea is short and remittent, not relieved by lying down and has no tendency to a spontaneous cure. Its natural cure is by pregnancy. It is often, however, accompanied by sterility, which may be cured by dilatation. In about one-third of his patients who were married and sterile the cure was followed by pregnancy. The best drugs for the relief of uterine colic are antipyrin and phenacetin. They are adequate in slight cases and their occasional use is not harmful. In some very bad cases powerful narcotics have to be used, but this is a bad plan. In a few cases he has found guaiacum removes the pain. He does not know how it acts nor how to pick out the cases that it will cure. The local treatment is to dilate the cervix. It is not invariably effective, even pregnancy does not always produce a cure, and if all treatment fails the removal of the ovaries may be required. This, however, should be avoided as long as possible, especially in young women, to whom the effects should be fully explained, Herman says, through some near female friend or relative in whom she has confidence.

2. **Premature Infants.**—Ballantyne describes the conditions of the unborn child, and especially the child born shortly before term. The premature infant is a fetus without one of its most important organs, the placenta; it also lacks the liquor amnii and membranes, which together go to make up the fetal annexa until the proper time for birth. Physiologically it is partly a fetus and partly a newborn child. We see fetal physiology trying to cope with neonatal conditions; the neonatal physiology hindered in its action by the persistent fetal conditions. First, the matter of temperature. The fetus is not required to manufacture heat in order to maintain its body temperature; the newborn infant is, and usually succeeds, but the premature infant is usually called upon to do so, and has only the tissue metabolism of fetal life slightly reinforced by that of an imperfectly established pulmonary respiration to aid him. His liver, moreover, which has been engaged in supplying the blood, is called upon to form bile, and to continue to form blood. The blood itself contains more nucleated xanthocytes than the full-term fetus and the jaundice of the newborn, which has been ascribed to breaking down of the xanthocytes, is very common in the prematurely born infant and the most active area, the placental, is cut off and the heart is called upon to send a specially large supply to the lungs, which it can not fully succeed in doing. There are also more exacting demands upon the new function of digestion. All the physiologic activity of the placenta, which has been in full play in its supplying chemical nutrition, is destroyed and its action of keeping out the invasion of toxins and bacilli is lost. The premature infant in its pathology is midway between the fetus and the newborn child and the closure of the umbilical arteries and veins is apt to be incomplete, and offers an avenue for infection and the ordinary routes of infection are also especially vulnerable. On the whole, he offers less resistance to the pathogenic organisms than the full-grown fetus. In managing the prematurely born infant we must try to continue the fetal phase of life after birth occurs; hence, try to keep up animal heat by the incubator, aid the lungs as far as possible by some method of exciting respiration—in this, Ballantyne prefers the alternating flexion and extension of the trunk of the child as it lies in the palm of the obstetrician's hand, having been first

carefully wrapped in cotton wool. Its food requires certain modifications. Human milk is lacking in iron, and he thinks it well to add iron to the food of the prematurely born child, and he has employed it in the form of liquor ferri peptonatus, though he can not say as yet as to any pronounced results from his experiments. If human milk is not available the prognosis is much more serious. It is well to keep the child in the dark as light may stimulate the eye muscles to act and lead to strabismus. With every care the child will often fail to survive. The problem of the premature infant, he says, is urgent.

3. **Mammary Cancer.**—The title of Bryant's paper explains the subject and he finds that the interval which may take place between the primary amputation of the breast for cancer and its occurrence in the scar or the second breast when such occurs is most uncertain. While in one-half the cases tabulated recurrence took place in 5 years or less, in the other half the interval was from 6 to 32 years, and at least in two-thirds of the cases occurred after ten years. Even when two or three operations were undertaken, the prospects of life were not bad. In 14 cases there was recurrence about the scar of the original operation, in the scar of the axilla in 1; in the sternum in 3 cases and in the second breast in 10 cases and in 5 of these the scar of the first operation was likewise involved. He suggests that the surgeons who advocate the clearing out from the axilla of all lymphoid tissue in every case should consider this fact. In only one of the cases he describes was the axilla cleaned out; this is not his custom and these results would not suggest a change of the operation. He thinks that the results of operation would be much better than they are now if they could always be undertaken during the early periods of the disease, as shown by the majority of his cases; that every breast tumor, neither clearly inflammatory nor encapsulated, which seems to involve the gland tissue and may therefore be cancerous, should be at once explored and removed, if found to be cancerous, with the whole gland and then cancerous growths when localized should be similarly treated. In advanced and neglected cases, the more thorough operations of Banks, Halsted, Gould and others may be used, and in cases of recurrence not favorable for operation, unless the removal of the ovaries should be found to be successful in the future, the *x*-ray should be employed.

4. **Mammary Cancer.**—Drew has been in the practice of removing the pectoralis minor in his operation for mammary growths and has found that it produces very little trouble in the after-condition of the patient. He thinks in most cases where this has been left the nerve supply has been cut off and the results are practically the same.

8. **Discharges and Douches.**—The douche or irrigant should have for its object the mechanical removal of morbid secretions, accumulations and foreign bodies or it may be used for antiseptic purposes or for the diagnosis. To be satisfactory in any of these it must conform to certain requirements: 1. It should be solvent of substances to be removed when practicable. 2. The reagent should be itself readily soluble in water and form a clear solution. 3. It should be non-irritating to the mucous membranes and sensitive surfaces. 4. To insure thoroughness it should possess the power of penetrating the surface tissues. 5. It should be miscible—chemically compatible—with the most effective antiseptics. 6. It should be economical in cost and reliably available. The most important of these essentials is the power to dissolve the discharge. It is well to know the character of the discharge, such as catarrhal discharges consisting mainly of the alkaline solution of mucin with globulin and serum albumin. Mucin is readily soluble in a weak solution of alkaline salts, but insoluble in acid, while cells and the serous globulins are soluble in weak solutions of neutral salts. Serous discharges rarely call for special removal except when localized. The pus varies considerably according to its production and its age. Usually it is soluble in a weak solution of neutral or alkaline salts respectively. Cerumen also varies. It is ordinarily soluble in alkaline salts, but it may be so hardened that softening by means of a strong alkaline solution, preferably in glycerin, is often expedient as a preliminary to the douche. Plastic exudation consists chiefly of filamentous fibrin entangling leucocytes, is very difficult of solution and rarely admits of more than a softening process by the neutral and alkaline salts. The same applies to blood clot. Wingrave gives a tabulated statement of the solvents and precipitants, and points out that many of the salts familiarly used, such as mercurial salts, phenol, boric acid, etc., are not solvents, but actually coagulants in soluble compounds. The best solution apparently seems to be the sulphate of sodium which has the power of mixing well with and diluting most substances and penetrating the tissues. Calcium chlorid, though not so good, is valuable as a hemostatic douche. Borax (sodium biborate) has the advantage of possessing some antiseptic properties. The strength of these solutions should be varied, not over .5 to 1 per cent. The salts of zinc are largely astringent and should be only used as such. Carbolic acid should be mixed with a solution of sodium sulphate or carbonate to make it more efficient. Peroxid of hydrogen has the great disadvantage of causing rapid effervescence when mixed with pus, and this is extremely awkward. The best disinfectants for douches are precipitants of proteids, and these are such as carbolic acid and biniodid of mercury, potassium permanganate, and so on. When mixed with sodium sulphate they are very good. He gives a list of formulæ and instructions for the employment of the douche and protests against the old-fashioned syringe, which is an infection-bearing and dangerous instrument. He illustrates his own instruments. No apparatus is satisfactory in which the same aperture suffices for filling and emptying.

11. **Children of Insane Mothers.**—Tredgold has analyzed 38 cases of children born from mothers while they were insane, 13 of these are living, 25 are dead. Twenty-two out of the 25 died before the completion of the first year. Of the 13 living, 10 are normal, 3 of these cases present evidence of morbid heredity. The conclusion which he thinks can be drawn is that the mental and physical condition of the child is in no wise interfered with by the mother's being insane during pregnancy. Neither is the condition of the child influenced by the variety of the insanity, the duration of the attack or the age of the mother, nor directly by the number of attacks from which the mother may have suffered, but its condition is directly dependent upon the presence or absence of morbid hereditary influences.

13. **The Surgery of Glycosuria.**—This article is concluded in this issue and it appears from Phillips' studies that most of the principal major operations have been performed with a large amount of success. The operations of expediency were singularly successful. The percentage of sugar in the urine is no criterion as fatal results have followed from coma where no sugar had been present for some time. We must take into account with the lowered vitality produced by the circulation of the abnormal amount of sugar, the presence of arteriosclerosis and nerve degeneration, especially as regards the occurrence of sepsis. As regards coma he thinks that general anesthesia is attended with some risk, though not every case of coma is necessarily diabetic. Thorough examination of the urine should be made in all cases, not only as to the amount of sugar, but the presence or absence of acetone or acid bodies, etc.; the amount of ammonia must always be estimated. 1. No operation save of the extremest urgency is to be performed if there is over one gram of ammonia excreted in the twenty-four hours, until this has been reduced to the normal amount. 2. An operation should be postponed if there be aceto-acetic acid in the urine, though the ammonia be not markedly increased. 3. Much albumin in the urine is a bar to operation. 4. If serious disease of other organs, such as the liver, be present an operation should be avoided. 5. Rapid wasting in a stout diabetic not obviously dependent on the surgical lesion demanding treatment should be a reason for postponing an operation until the general condition is improved. An operation should be performed: 1, for malignant disease, if, apart from diabetes, such would be urged; 2, in the case of large abdominal tumors, especially in females. 3. In diabetics of good health without extensive arterial or nerve degeneration cosmetic operations may be performed, especially in females. 4.

An emergency operation is to be undertaken even in the most unfavorable circumstances, but a very guarded prognosis is to be given. Save in the last category, if any of the indications against operation be present the operation should be postponed until they are ameliorated. In all cases in which delay does not mean loss of the patient a careful diet should be adopted and drug treatment is necessary. If ammonia be present in excess sodium bicarbonate should be administered daily until the percentage becomes normal. The actual amount required may be as much as 30 or 40 grains per day. If it should make the patient vomit it should be given per rectum. This treatment lessens the risk of sepsis and coma. Local anesthesia is preferable to general, if possible, and if general anesthesia is employed ether may possibly be safer than chloroform. In any case sodium carbonate is to be administered for a few days before and after, and the increased vulnerability of the tissues should be kept in mind, and strong antiseptics should be avoided. The patient should not be considered cured until the wound is entirely healed. In operations on the urogenitals where internal antisepsis is difficult to maintain an internal antiseptic such as urotropin should be administered.

15. **Pulmonary Tuberculosis.**—Philip lays down the following points as regards certain features of the course of pulmonary tuberculosis; the history of the case, when placed on open-air lines, shows a remarkably rapid return of temperature to the normal. In a certain percentage of cases the fall of temperature to normal does not occur so rapidly, but the ultimate return is frequent enough, if proper treatment be maintained throughout, though it may be delayed for several months. The temperature may remain almost continuously normal even when abundant evidence of moisture is present, and other signs suggestive of the existence of considerable disease in a state far from latent. This he thinks is important, but not sufficiently recognized. A low temperature must not be accepted as an expression of the quiescent or chronic stage. When the temperature is disturbed, either continuously or recurrently, such disturbance should not be attributed vaguely to tuberculosis. A definite superadded cause of disturbance should be sought and may commonly be found. It is the height of folly to attribute pyretic disturbance occurring in the course of pulmonary tuberculosis vaguely to the tuberculous disease. Tuberculosis per se plays a minor part in the production of pyrexia and the search for the cause should be thorough.

18. **Childbirth in Deformed Pelvis.**—Heuze reports 23 cases of flat rachitic pelvis between 8.5 and 9.5 cm. in diameter. Only 3 of the 8 patients with pelvis less than 9 cm. bore living children. Version was applied in 12 and only 5 of the children lived, while all were viable when the forceps had been used, with one exception. He concludes that the use of the forceps is no more dangerous for the mother than version, while it is very much less serious for the child.

21. **Orbito-Ocular Complications of Sinusitis.**—Lapersonne is inclined to agree with Luc that all the sinuses are affected simultaneously in a certain number of cases of sinusitis, if not in all, and it is of the utmost importance to examine all the cavities when one is involved. This applies with especial force to the maxillary sinus whose symptoms are apt to mask those of the other sinuses. The anatomic arrangement of the parts explains the frequent coincidence of inflammation of the posterior sinus in case of inflammation of the recesses of the antrum of Highmore, even when there is no fronto-ethmoid suppuration. Some writers classify sinusitis as the fetid variety, due to infection by anaërobics from the teeth, and the non-fetid, due to the ordinary germs entering from the nasal passages. General infection may result from a sinusitis; even broncho-pneumonia has been traced to it in some instances, but orbito-ocular complications can be explained by direct propagation of the process or invasion of germs. One of the most typical examples he relates is that of a young woman who exhibited slight exophthalmus and swelling of the lids during an acute maxillary sinusitis. As these symptoms subsided, evidences of paralysis of the motor oculi developed and on searching, a sphenoidal sinusitis was discovered.

23. **Treatment of Aneurisms of Arch of Aorta.**—Guinard comments on Tuffier's experience with an aneurism of the aorta which he extirpated as described in THE JOURNAL of April 12, p. 971. The patient succumbed to secondary hemorrhage from the ligated pedicle which became gangrenous. Guinard thinks that the impossibility of extirpating an aneurism in this location in the majority of cases, and the extreme gravity of this operation in the exceptional instances in which it is practicable, debar it from a place in surgical therapeutics. He prefers simultaneous ligature of the primary carotid and subclavian on the right side. He treated in this way six patients with aneurism of "the base of the neck" and two with aneurisms of the arch of the aorta, before 1896, and since that date six more cases, a total of twelve. Many of the published cases of aneurism supposed to be in the innominate artery were probably located in the arch of the aorta, as the physical signs of these two localizations are nearly identical. The diagnosis can never be more than presumptive except possibly with radioscopy. Consequently, Guinard proclaims that every aneurism of the base of the neck should be treated indiscriminately by a catgut ligature of the two arteries mentioned above. Aneurisms to the left of the innominate trunk are the only ones not amenable to this treatment. In one of his personal cases the dilatation of the aorta had surrounded the brachio-cephalic trunk so that the left subclavian issued directly from the tumor. The carotid and the subclavian were ligated separately. A year after the intervention the patient is still free from attacks of suffocation and from wheezing. In a second case the patient survived only a month, but the tumor subsided after the intervention and death from perforation was averted. In another case the patient was a man 49 years of age. The symptoms of compression in the thorax completely disappeared after the intervention and during the eleven months of observation there was no dyspnea except during unusual exertion. Tardy hemiplegia developed after his first operation of this kind and the patient last operated on has also succumbed. He left the hospital, contrary to directions, the fourth day after the intervention, drove across Paris and climbed to his apartment on the fifth floor, dying suddenly as he lay down on the bed, evidently from fulminating hemorrhage. This catastrophe should not be credited to the intervention, which is simple and comparatively harmless. Guinard has always found the vessels sound even in the immediate vicinity of the tumor and the ligature can be applied with confidence close to it. In one patient the aneurism was supposed to be in the subclavian, but the brachio-cephalic trunk proved to be also involved. The ligature therefore had to be applied outside of the tumor, almost touching it, but the walls of the artery resisted the silk thread like those of a normal vessel. The patient was clinically cured in four months.

28. **Treatment of Tic Douloureux.**—Static electricity seems to have a special action in hysteric tic douloureux, but isolation usually proves the most effectual of all measures in these cases. Potassium bromid is useless in epileptiform tic douloureux, but is sometimes beneficial in cases associated with true epilepsy. Several remarkable cures of this kind have recently been published. Strontium bromid seems to be even more effectual. The bromid must be pure, free from all traces of baryta. Total peripheral resection of the nerve involved has resulted in some cures without recurrence for years, but in case of a primary or secondary "Gasseritis" peripheral resection is, of course, useless. When the pain is in the deep-seated portions of the nerves, the Gasserian ganglion should be resected without wasting time on peripheral measures. Resection of the superior ganglion of the sympathetic is a benign intervention and is proving very effective. Recurrence is liable at first, but the recurrence is much less severe and is liable to yield to therapeutic measures previously quite ineffectual. Resection of the ganglion has a vasomotor influence on the Gasserian ganglion and also on the peripheral branches and bulbar centers of the trigeminal. The harmlessness of this operation and its far-reaching influence promise a future for it in the treatment of certain facial neuralgias.

29. Double **Monstrosities, Operated and Operable.**—Baudouin asserts that there is only a single xiphopagus alive at the present moment, the "Chinese Brothers" with the Barnum and Bailey troupe. They could be separated, as they are evidently operable. Doyen and others who examined them found that the connecting bridge of liver tissue has become almost fibrous from the constant traction, and could easily be divided if the twins desire it when they attain their majority. They are now 17. Baudouin's article is profusely illustrated with cuts of most of the known double human monstrosities. He urges the establishment of a chair of teratology and a museum for the special study of anomalies in this line.

30. **The Salt Soda Solution in Surgery.**—Tavel has been using for ten years a salt-soda solution instead of the usual physiologic saline solution, as he thinks that the fluid should be rendered slightly alkaline as well as saline. It has a remarkable attraction for the leucocytes and thus promotes the physiologic processes of repair while free from the slightest irritating action on the tissues. He aims to stimulate the microbicidal agents of the organism, allowing them free play by moist asepsis with this physiologic salt-soda solution. He reports extensive experimental research which confirms these properties of the salt-soda solution and demonstrates the injury done by "dry asepsis" in many cases, the tendency to adhesions later and the direct harm from exposure of the intestines, etc., to the air. His formula is .75 per cent. sodium chlorid to .25 per cent. dried sodium carbonate. It becomes spontaneously sterile very gradually cold and very rapidly when boiled. He has used it for irrigating the wounds in 80 major operations and the Germans have also introduced it extensively in their clinics. Saenger writes that he has not had a single case of death from infection or physiologic occlusion in 157 laparotomies since he has been using the salt-soda solution, and others report similarly favorable results. Tavel protests against assuming that elaborate operating rooms are necessary for aseptic operations. A small valise for the instruments, dressings, etc., and an hour to transform any room into a suitable operating room, and the surgeon is ready. He boils the tampons, compresses and thread in the salt-soda solution, the instruments in a 2 per cent. solution of borax, and uses a tepid salt-soda solution for irrigating the wound. He lays cloths wrung out of lysol or sublimate solution around the field of operation, with dishes of 1 per 1000 sublimate, or 2.5 per cent. lysol, for disinfecting the hands, rinsing them afterward in the salt-soda solution. With these simple precautions he has operated on numbers of patients at their homes, doing laparotomies, resection of the knee, herniotomies, trephining, etc., and has never had an infection. He urges that students should be especially trained to dispense with costly appliances and learn to "think bacteriologically as well as surgically."

31. **New Method of Operating on Hemorrhoids.**—Potarca describes five cases operated on by the method devised by Vereesco and briefly described at the Paris International Medical Congress. A cylinder of cork 8 or 9 cm. long by 3 to 3.5 in diameter is made with a wire handle and is inserted in the dilated anus until the lower end is on a level with it. The dilator is then removed and the anal tissue is pinned to the edge of the cylinder by a row of Carlsbad pins about 1 cm. apart. They pass through the mucosa and the integument at their junction. The latter is then cut with a bistoury just outside the row of pins, the cylinder serving as a support for the incision which severs the skin from the pinned portion. The mucosa containing the hemorrhoidal nodules is left pinned to the cork and the detached surrounding skin and muscle are pushed back. The cork cylinder is then drawn out and the nodules are extirpated or scraped or the entire diseased tract is ablated, the incision proceeding a little at a time as the suture follows it. The cork cylinder affords a convenient handle and support for both incision and suture. The stump is then sutured to the raw edge of the skin encircling the anus which was first incised, and the operation is completed. Internal and external antiseptic precautions are unnecessary with this simple and rapid operation, which insures the cleanliness and the hemostasis of the field of operation during the entire procedure, by the perfect occlusion of the anal orifice and the stretching of the walls of the anus over the cylinder. The new sphincter is ideal. The article is fully illustrated.

35. **Trophoneurotic Atrophy of the Bones After Inflammations and Traumatism of the Extremities.**—Sudeck has noticed that acute atrophy of the bones is liable to occur after all kinds of inflammations and traumatisms of the large and small articulations and also after phlegmons of the soft parts. It usually develops in all the bones below the affected point. It is also liable to occur after contusions and sprains of wrist or ankle, but inflammation of a joint seems to afford the most pronounced predisposition. He considers it a trophoneurotic phenomenon, a traumatic reflex neurosis, and has observed it in some cases as early as four and a half weeks after the primary lesion. It frequently assumes surprising proportions in eight or nine weeks. Radiography shows that the bones are characteristically altered and also the muscles to a less extent. Cyanosis, clamminess and edema of the part aid in the diagnosis, but radiography alone is decisive. The alterations in the bones may persist, but the prognosis is usually favorable. As the severe functional disturbances subside, the shadow of the bones becomes normal once more. Stiffness in the joints, loss of power and occasionally spontaneous pains are symptoms of the condition. It may cause intense pain when weight is borne on the part. This symptom has been observed after even slight traumatism and is undoubtedly due to atrophy of the bone. The latter may also entail curvature of the long bone, as in a case of coxa vara described, consecutive to slight trauma of the neck of the femur. Knowledge of the possibility of such an occurrence, long after the primary traumatism has healed, is important in damage suits, etc. Treatment and prophylaxis should aim to cure the primary lesion as soon as possible. This is usually best accomplished by immobilization, but the bones beyond the lesion should be exercised daily even although movement is painful. Massage and orthopedic exercises should not be delayed until the wound has healed. The harm done to a granulating wound after a phlegmon of the hand, for instance, is not to be compared to the injury that may result from the loss of precious time. Hot local baths are useful and also artificial passive congestion, according to Bier or Helferich. Sudeck prefers the latter. To prevent atrophy of the bones of foot or knee, active movements are necessary but no weight should be borne on the part.

36. **Abortive Treatment of Carbuncle by Subcutaneous Disinfection.**—Bidder does not refer to malignant pustule but to all kinds of furuncles including those with multiple infectious foci. The method of treatment he describes has attracted little attention since his first communication on the subject in 1887, but his experience has been so invariably favorable that he appeals to others to try the method and abort these lesions in the early stages and thus save the patients the usual long siege. He does not wait for the furuncle to ripen, but injects at once a solution of carbolic acid. He inserts a large-sized Pravaz needle, slanting, to the very heart of the furuncle, pushing it through the indurated tissue, the entering point about 5 to 10 mm. from the outer limit of the induration. A few drops of the carbolic solution are then expelled from the syringe and the latter is withdrawn. It is then inserted on the opposite side of the furuncle in the same way, slanting, until the tip reaches the same point as in the first injection. The fluid in the syringe is then expelled and it flows out through the channel left from the first insertion of the needle, or through the central fistula. The procedure does not have to be repeated, and a 2 per cent. aqueous solution of the carbolic acid is strong enough for the purpose, or even a solution of boric acid. The dressings must be changed the next day, but after the plug has been expelled—which occurs exceptionally early with this treatment—the further care is simple. The furuncle is painless immediately after the injection, but then becomes quite painful, with boring and throbbing pains. They subside in the course of an hour and the relief is permanent. The tissues are so hard and tough on the fingers that prompt

incision down to the bone is the most rational treatment for a panaris and he consequently does not recommend this "subcutaneous disinfection" for this kind of a lesion.

39. **Meeting of the Cancer Research Committee.**—Von Leyden delivered his address on the "Parasites of Cancer" which he had presented at the medical congress four days previously and which was reviewed in this connection in THE JOURNAL of May 17, p. 1316. Lubarsch observed in reply that local proliferation of the cells can occur in the absence of parasites, and that we have no grounds for the assumption that parasites are able to induce unlimited destructive proliferation of cells. The case of "cabbage hernia" is not an instance in point and has no analogy with the subject. Neither has the affection in rabbits caused by the coccidium. When these parasites penetrate into the epithelial cells of the small biliary passages, the epithelial cells remain entirely passive. There is no proliferation until the passages have become dilated nearly to their maximum by the accumulation of the coccidia and an inflammatory process has been set up with consecutive growth of connective tissue. The parasites are not the direct cause of the cell proliferation in this case. Still further proof is afforded by the fact that the coccidia are found nearly as numerous in the intestines as in the liver, but their presence in the intestine is never accompanied by cell proliferation. There are no signs of mitosis in the cells even when they are crowded with the parasites. The intestine is physiologically accustomed to distension and inflammation is not induced, as in the case of the liver. On the other hand, the conception of a parasitic origin would conflict with what we know of the development of malignant neoplasms in aberrant embryonal germs, in dermoid cysts, in neoplasms in the kidneys, salivary glands, etc. We would have to accept that the parasite has an exclusive affinity for aberrant cells while normally-located cells identical in structure have no attraction for it. This conception is rendered all the more difficult by the fact that these aberrant germs, in the kidney, for instance, are usually encapsulated. It would be hard to understand how the parasite could penetrate into them, through the protecting wall, without inflicting some damage on the kidney tissue proper. The congenital origin of tumors must also be borne in mind, such as embryonal adenosarcomata of the kidneys, rhabdomyosarcomata and tumors in the liver like one noted at von Bergmann's clinic in a ten-day babe. Lubarsch recently found an extremely complicated gliomatous, sarcomatous tumor of the skull and brain in a still-born infant whose parents did not exhibit a trace of tumor formation. The parasitic theory would compel the assumption that the parasite had passed through the tissues of the mother or father leaving them intact, and settled in the brain of the fetus where it had induced the development of the neoplasm. He concluded with the statement that many other scientists before von Leyden have noticed the forms which he assumes to be parasites, and no one can say exactly what they are. Some of the forms were reproduced by Schwann and Albrecht in their experimental research on karyorrhexis, in which there could be no question of parasitic action.

41. **Practical Application of Hemolysis in Therapeutics.**—Von Niessen states that he has succeeded in isolating from the blood of 120 syphilitics the bacillus which he considers the causal agent of syphilis. Cultures were derived in every case without exception. He applies the new theoretical and experimental facts that have been learned in regard to hemolysis to the treatment of chronic infectious diseases, syphilis in particular. For instance, mercury paralyzes to a certain extent the vitality of the protoplasm by coagulating the albumin, and this in turn checks the proliferation of the bacteria in the blood. This is the moment to introduce a new element to destroy the bacteria and aid in their elimination. This may be accomplished by balneotherapy. The abrupt changes in temperature favor rupture of the blood corpuscles and pour their contents into the serum. Another means is the artificial hemolysis which is induced by preparations of iodin. The mercury acts as a stimulant to absorption as it is a foreign body, and this action is followed by stimulation of the eliminating function in the efforts to throw off the foreign body. He observes that much can be learned that will prove useful in therapeutics from study of the causes and processes of hemolysis.

42. **Advantages of Artificial Mineral Waters.**—Jaworski believes that better results can be obtained from artificially compounded mineral waters, made according to rule and to conform to individual indications, than from natural mineral springs water. He gives a table of eighteen different kinds and urges physicians to recommend them to their patients. They can be taken at home, but it is better for the physician to prescribe at the same time the change of air and scene which will supplement to best advantage the action of the mineral waters. He is not restricted to the places where the natural springs are found, with their expensive and frequently unsalubrious conditions, but can send his patient to the mountains, the seashore, a farm, or wherever he deems best, with his supply of artificial mineral water. It is possible for the physician in a climate and environment especially suited to certain affections, to make a specialty of them and with his artificial mineral waters, to combine all the factors most conducive to a cure. In case one kind of water does not prove effectual, it is far easier to change the water than to travel from one watering-place to another in search of the natural springs.

44. **Etiology and Prophylaxis of Mercurial Stomatitis and Proctitis.**—Bockhart emphasizes the fact that the mercury is not directly responsible for the stomatitis or proctitis, but it produces conditions in the mouth favorable for the proliferation of bacteria, and also conditions in the tissues which diminish their resisting power. This combination entails the resulting lesion, and knowledge of this fact indicates the measures for prophylaxis.

46. **Stypticin as a Local Hemostatic.**—Kaufmann lauds the value of stypticin for this purpose. It is a hydrochlorate of cotarnin, and has proved very useful as an internal remedy for uterine hemorrhage. Kaufmann has been using it for two years as a local hemostatic for the urethra. He combines it with gelatin and finds that it is effective only when the mucosa is more or less abraded as it has no action on sound tissue. He also uses it as a hemostatic for parenchymatous hemorrhage of all kinds and in minor operations.

47. **Treatment of Leucoplasia Bucco-Lingualis.**—Bockhart has had sixty patients with this affection. All were men, all smokers and all were syphilitic. The leucoplasia became aggravated usually under mercurial treatment but could be cured by rinsing out the mouth six to twelve times a day with a .5 to 3 per cent. saline solution. The cure was complete in three months to two years, even when smoking was not entirely abandoned. In some of the patients he had the patches rubbed first with balsam of Peru. His patients carry a bottle of the saline solution in their pocket so as to rinse the mouth frequently during the day. Two of the five, who were thus cured so completely that not a trace is left of the trouble, have resumed smoking. When the patients refuse to give up tobacco, at least during treatment, much benefit can be derived from the saline rinsings, but no permanent cure. He found that the leucoplasia became aggravated after application of caustic measures.

49. **Action of Alkaline Iodids on Patients Deprived of Salt.**—Sellei states from his experience with 30 patients that the deprivation of salt does not prevent iodism when the alkaline iodids are administered. Four of the 28 syphilitics showed intolerance and 1 of the 2 free from syphilis. The variation in the proportion of rhodan in the saliva gives no indication of impending iodism.

50. **Massage of the Urethra.**—Berger uses an instrument for massaging the urethra which consists of a long tube with four grooves at the end about 7 cm. long and 2 mm. wide. The outer end flares into a funnel. When this tube is inserted in the urethra the mucosa presses into the grooves and by gently twisting the tube between the fingers to and fro the walls of the urethra undergo a light but effective massage.

By inserting another tube inside the first it is possible to combine irrigation of the urethra with the massage.

59. **Spinal Analgesia and Distribution of Sensibility According to Segments of Spinal Cord.**—Neugebauer states that since he has succeeded in thoroughly sterilizing his solution of tropa cocain by boiling it, his experience with it has been extremely satisfactory. This includes his last series of 40 cases of spinal analgesia. After-effects of some kind were always noticed, but so slight as to be insignificant. He uses .05 or .06 gm. of the tropa cocain and by careful tests in 100 cases has established that the analgesia occurs in conformity with the laws of segmental innervation from the spinal cord as portrayed in the plates of Kocher's recent work on "Injuries of the Spine." This explains the variations in the sensibility of different regions although the segmental distribution is not so clearly circumscribed as in case of localized injuries of the spine. The analgesia commences in the fourth sacral segment, and spreads in turn to the third and second. The sole of the foot does not become analgetic until some time after the dorsum, and Kocher's plate shows a patch on the sole which is innervated from the first sacral segment. He always found that the analgesia reached higher in the back than in front of the body, and that the serosa of the testicles remained sensitive although the skin might be analgetic, and even after total analgesia of the body.

60. **Pulmonary Embolism in a Case of Placenta Previa.**—In the case described by Voigt the patient was debilitated by four weeks of more or less hemorrhage when brought to the hospital. The birth was partially spontaneous after version and was not accompanied by hemorrhage. The mother was recuperating normally when in about an hour symptoms of embolism of the lungs suddenly developed. The symptoms gradually subsided under camphor and saline infusion, but a similar attack occurred again the fourth day, and an abortive one the day after. The patient recovered after thirty-one days of strict rest in bed and general tonic measures. If the hemorrhage in such cases persists after tamponing the vagina it might be advisable to tampon the collum and also to induce delivery, possibly with Bossi's dilator to save time. The four arms of this dilator when in contact form a single small rod like an ordinary uterine dilator. By turning a thumbscrew in the handle the rod separates into four parts which spread parallel and concentrically to a distance of 8 to 10 cm. [Leopold has recently reported very favorable experiences with it. See THE JOURNAL of May 31, p. 1477.]

61. **Senile Angiomata.**—Raff investigated 500 persons to determine the frequency of angiomata of the skin. He found them on 180. They were rare under 15 but were noted in 18.7 per cent. of the 123 subjects between 20 and 30; in 45.3 per cent. of the 75 persons between 30 and 40, and in 54.2 per cent. of the 61 between 40 and 50. The proportion progressively increased with the age. They occur, therefore, more frequently in the prime of life than has been generally supposed.

63. **Study of Hay Fever.**—Thost made a collective inquiry among the victims of hay fever in the North Sea resorts last summer. Four hundred filled out the circulars he distributed, asking for particulars in regard to their affection. Comparing the data thus obtained corroborates the assumption that hay fever, like asthma, is a reflex neurosis in the region innervated by the nerves of respiration. The olfactory nerve is the one principally involved, its idiosyncrasy in respect to the odors or perfume of certain plants being the essential peculiarity of hay fever. No remedy will cure it once for all in a few applications, but the experience of these four hundred persons demonstrates that it can be improved and even cured and the symptoms avoided by symptomatic and local treatment. The places absolutely free from hay fever are those with scanty, low vegetation without much blossoming.

64. **Behavior of the White Corpuscles in Surgical Affections.**—Wassermann has been making an extensive study of the leucocytosis accompanying surgical affections and announces that he found over 25,000 leucocytes constantly in cases of appendicitis or processes in the vicinity in which the general symptoms indicated extensive suppuration and also in those in which it existed but was not revealed by any other symptoms. The only exception were the cases so extremely severe that the organism was incapable of reacting with leucocytosis while the other symptoms were so pregnant that no doubt was possible, and also the chronic cases in which the abscess had become walled off. He invariably found that the cases apparently severe but with low or merely transiently high leucocyte count, all recovered without surgical intervention. He proclaims, therefore, that leucocytosis persistently over 25,000 accompanying appendicitis indicates an operation without delay. Suppuration elsewhere was only accompanied by a moderate leucocytosis in the numerous cases examined of paranephritic or prostatic abscesses, suppurated cervical glands, mastitis and phlegmons, so long as the process was circumscribed. General infections, on the other hand, such as septicemic affections and erysipelas were accompanied by a high leucocytosis. Various bacteria were found in the pus in different cases, the pyocyaneus once, the proteus and anaërobics a few times. The species did not seem to have any influence on the leucocytosis which is essentially an increase in the number of polynuclear neutrophile leucocytes. The patients with mild clinical symptoms of appendicitis operated on exclusively from the indication of the persistently high leucocytosis, all proved to have extensive suppuration not revealed by any other sign. This independence of the leucocytosis from the other signs, the temperature, pulse, general aspect and local findings, confers an unprecedented importance upon it as a differentiating measure for suppuration in the ileocecal region.

66. **The Treatment of Venereal Ulcer with Cold.**—Brandweiner reports from Neumann's clinic that very favorable results have been obtained in the treatment of venereal ulcers by freezing them with ethyl chlorid or methyl ethyl, spraying the part with air at the same time. In three to five minutes the ulcer is frozen and a white snow forms on the surface. There is a smarting at first which soon vanishes but reappears for a brief time later. The procedure is repeated once to three times a day, and three or four applications in the majority of cases transform the ulcer into a clean granulating wound with no specific characteristics. These favorable results were observed in 33 out of the 40 cases thus treated. The cold acts by the same mechanism as heat, inducing hyperemia by the reaction, but its application is much more convenient than that of heated air.

68. **Pathology of the Metabolism.**—Freund is chief of the chemical laboratory at the "Rudolfstiftung," and in this article reviews the research on the metabolism in diabetes and other diseases published during the last few years. He remarks that too little attention has been paid hitherto to the pathology of place. By this he means the presence in the body of substances normally its constituents, but not in their normal place. For example, the substances in the blood cells may become harmful when they are released by the destruction of the cells containing them. He compares them to a ship loaded with heavy lumber. If the ship is wrecked the floating lumber becomes a menace to navigation. This pathology of place is probably the principal factor in the development of fever. He suggests a number of lines for future research, among them the determination of the groups of albuminoids which favor the proliferation of certain bacteria, the typhoid bacillus, for instance, so as to avoid them in feeding typhoid patients.

71. **Tests of Antiseptics for the Urine.**—Sachs reports tests of the antiseptic power of substances administered internally to display their action in the urine. He found that after the ingestion of at least 4 gm. of urotropin a day, the urine acquired marked bactericidal power both for bacteria naturally in or added to it. Salicylic acid ranks next in this respect but sometimes causes unpleasant by-effects in the large doses required, while urotropin, even in the dose of 8 gm. long-continued, causes nothing of the kind. Methylene blue, sandal oil, copaiba, camphoric acid and sometimes oil of turpentine also displayed distinct antiseptic power after large doses. No action of the kind could be detected after administration of potassium chlorate, boric acid or folia uvæ ursi.

77. **New Kind of Acquired Immunity.**—Carbone believes that he has discovered a new means of immunizing the organism against a specific infection by injection of a substance normally in it, the histone, the nucleo-proteid which Kossel discovered in the nucleated red corpuscles in fowls. It has since been established that it is a normal constituent of all the cells in mammals. By the toxic action of the pneumococcus on the cells in the blood, this histone is liberated, and proves one of the principal factors in the development of the infectious syndrome. Carbone now asserts that an injection of histone prepared from the viscera of rabbits, induces the production in the organism of a specific anti-histone immunizing substance which protects the animal against infection with the pneumococcus later. In his tests it never failed to immunize the animal against two or three times the fatal dose of pneumococcus, and against the minimal fatal dose of a streptococcus, and caused much longer survival after infection with anthrax. It may be possible that this new method of immunization may prove useful to supplement the methods of immunizing hitherto in vogue by means of bacteria or their products. He is now engaged in further research in this line, hoping to demonstrate the possibility of aiding the organism in its struggle against disease by accumulating measures of defense, in immunizing it in more than one direction. Carbone describes his technic for testing the serum for its coagulating power which is very much diminished in certain morbid states. He uses an extract of the heads of leeches which allows very exact standardizing.

79. **Alterations in the Sensibility of the Skin in Case of Visceral Lesions.**—Tedeschi describes the changes in the sensibility of the skin which were observed in twenty patients with various visceral lesions. He found that there was a marked coincidence between them and the special lesion, and that the changes occurred in zones similar to those described by Head. They are evidently of reflex spinal origin and may aid in the differentiation of the lesion. A tendency to nervous troubles exaggerates the abnormal sensibility, which may assume the form of hyperalgesia and thermo-hyperesthesia or thermo-hypoesthesia. He gives numerous illustrations showing the constant involvement of certain zones as the accompaniment of certain lesions. For instance, inflammation of the tubes was accompanied by the maximum of hyperalgesia in the twelfth and very rarely in the eleventh dorsal zone, while in appendicitis the maximum was always in the tenth dorsal zone. In case of renal lesions the maximum of hyperalgesia was in the tenth dorsal zone, and if it invaded the eleventh and twelfth, the pelvis and ureters were probably involved. In one case the maximum was in the third sacral segment, and the operation confirmed the presumptive diagnosis of nephrolithiasis, with injury of the bladder from calculi.

81. **Study of the Diazo-Reaction.**—Johnson applied the diazo test in 1221 cases of various diseases. It proved positive in 80.5 per cent. of 728 cases of typhoid fever, in 46 per cent. of pulmonary tuberculosis and in 18.9 per cent. of 90 cases of pneumonia. He thinks that the percentage in typhoid fever is probably actually higher than these figures, as many of the patients were not seen during the early stage of the disease. The diazo-reaction, therefore, can be regarded as an important differentiating measure in dubious cases.

84. **Prophylaxis of Septic Scarlet Fever.**—Sohn calls attention to a case in his experience in which two children in the same family had scarlet fever. One was kept in his usual room while the other, the healthier one, was transferred to a room which had been used eighteen months previously by a person with a persisting suppuration in a fractured leg. The room had been closed since without disinfection. Three days after the child had been placed in this room symptoms of septic scarlet fever developed, fatal in three days, while the other child had merely an ordinary uncomplicated case although the tonsils were hypertrophied. He is inclined to attribute the sepsis to virulent germs in the dust of the spare room.

88. **Typhoid Fever in the City of Mexico.**—Gavino reports that he has recently encountered fifteen cases of typhoid fever, corroborated by the positive serum reaction. This little epidemic is confined to a certain quarter of the capital. Typhoid fever is so rare in the City of Mexico that its existence there has been denied.

89. **Antidiphtheria Serum in Treatment of Typhoid Fever.**—Yanez believes that antidiphtheria serum is effective in other infectious diseases and relates two cases of typhoid fever in which the symptoms were rebellious to ordinary measures, but gradually yielded after injections of Roux's serum had been applied.

90. **Hot Air in Treatment of Essential Nasal Hydrorrhea.**—Garaizabal has only two cases to report, but the success was so complete and permanent that he urges others to try this method of treatment when other measures are unavailing. He directed a current of hot air on the hypertrophied lower turbinate bones and after twenty-five applications for ten minutes a day, the flux was entirely cured. He used an apparatus for the purpose, a small metal box holding live coals, a rubber bulb to pump the air through it and a rubber-tipped metal tube in a wooden handle for direct application to the nose.

91. **Prophylaxis of Typhoid Fever.**—Barreneche observes that infection from water can be guarded against and that infection from dust is by far the most dangerous means of contagion of typhoid fever. He cites as an argument to sustain this assertion the fact that the newly graduated doctors when they commence their service in the hospitals are frequently affected by typhoid fever. They ascribe it to auscultation of the back of typhoid fever patients, as the garments and bed linen are so liable to be contaminated by particles of excreta, which float in the air as the patients are moved.

93. **Etiology of Ozena.**—Razquin does not accept the *Bacillus fetidus ozenæ* described by Perez as the specific agent of ozena, as it is not encountered in every case and as it may be found in persons exempt from the affection. He has also found it in dogs and suggests that the dog may be the intermediate host between man and man. Razquin has never known of a case of direct transmission of ozena from one person to another, and it occurs in some cases with no previous communication with dogs. On the other hand, the arguments in favor of a sinusitis as the primary cause are numerous and convincing. The fetidity he ascribes to secondary infection which has no specific character. Treatment is more rapid and complete the more accessible the primary lesion. Certain writers state that they were unable to discover any indications of sinusitis at the autopsy of patients with ozena, but study of their reports shows that they failed to examine all the sinuses.

94. **General Infantile Atrophy and Its Treatment with Artificial Serum.**—Vargas has for years been treating children under 2 years of age with general atrophy by means of injections of a 1 per cent. solution of sodium chlorid or of magnesium and sodium sulphate. This treatment entails a rapid cure in the benign form. The grave form is accompanied by intestinal lesions which render recovery a rare exception. He illustrates one case in which a child 2 years old looked almost like a mummy before treatment but gained three kilograms in weight and three centimeters in length by the twentieth day after the subcutaneous injections of 100 c.c. of artificial serum were instituted, repeated night and morning. In thirty minutes after the first injection the arterial tension had increased and the pulse risen from 96 to 125, while the body warmth increased .5 of a degree C.

96. **Serum Treatment of Malignant Anthrax.**—Escudero thinks that the attempt to excise the carbuncle is useless later than half an hour after the inoculation, and is thus impracticable in all cases. It merely adds the needless shock of the operation to the clinical syndrome already present. General treatment should include calomel, local application of a 2 per 1000 solution of bichlorid at 95 F., and serum treatment. The three cases he describes all promptly recovered after one to three injections of serum. Another patient succumbed after excision of the pustule in the neck, notwithstanding the serum treatment.

Queries and Minor Notes.

TREATMENT OF TABES BY GOLD OXID, ETC.

ST. LOUIS, MO., May 21, 1902.

To the Editor:—In the last issue of THE JOURNAL I saw, on page 1338, an abstract from a Paris journal on the treatment of tabes by gold oxid and phosphovinic acid. Could you please tell me how phorphovinic acid is made and how the gold oxid is combined, and the dose; also how is the iodin administered?

I have been looking up these remedies and can find nothing that will give me any light on the subject. L. P. W.

ANS.—The phosphovinate of gold is stated to be a combination of ethyl phosphoric acid with the oxid of gold. It is a definite chemical compound with 65 per cent., of the stimulant, the gold, to 35 per cent. of the tonic, the phosphoric acid. The compound is rendered soluble by a slight excess of the ethyl phosphoric acid, and the tonic element is enhanced by the addition of the phosphovinate of potassium. The iodin is given in the usual form of an alkaline iodid. Jolly explains its transformation and action as follows: During functional activity the cells become acid and do not return to alkaline until they are at rest again. During the acid phase the iodin of the iodid is liberated and acts as a metal-loid iodin, powerfully antiseptic, antitoxic and stimulating. As the cells become alkaline again, the iodin resumes the form of an iodid and ceases to be antitoxic although still retaining weak antimicrobian and antiseptic properties. He has succeeded in administering iodin in the form of an alkaline iodid without intolerance or inconveniences, for as long a period as necessary, by combining it with extract of juglans in pilular form, as an adjuvant to the gold and phosphoric acid, commencing with small doses of each and increasing them a little every week. Further details in regard to the production of the substances or the dosage are not mentioned. Jolly and Bouland have been studying the application of gold in therapeutics for years.

WHERE CAN A PHYSICIAN, WHO IS NOT A PHARMACIST, CONDUCT A DRUG STORE?

CHICAGO, May 27, 1902.

To the Editor:—Kindly let me know if there are any states in which a physician can own and take charge of a drug store without taking pharmacy board examinations or employing a registered druggist.

Yours truly,

C. JOHNSON.

ANS.—Probably in none of the Northern States. A physician was formerly granted that privilege in Missouri, but the law has been changed. It may be that some Southern State or some territory allows this. It will be necessary to address the boards of the several states to secure more definite information than the above.

MEDICAL REGISTRATION IN FLORIDA.

SUNCOOK, N. H., May 27, 1902.

To the Editor:—What is the law for medical registration in the State of Florida? Please send me the address of Secretary of State Board of Examination, if any. A. M. LAVALLEE, M.D.

ANS.—There is no state board yet, but a board for each of the seven judicial circuits, each of which establishes its own standard for examination. A diploma from a recognized school and an examination before one of these boards are required. The secretary of the Fourth Judicial Circuit Board is Dr. Neal Mitchell, Jacksonville.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

A MANUAL OF SURGICAL TREATMENT. By W. Watson Cheyne, M.B., F.R.C.S., F.R.S., Professor of Surgery in King's College, London, Surgeon to King's College Hospital, etc., and F. F. Burghard, M.D. and M.S. (Lond.), F.R.C.S., Teacher of Practical Surgery in King's College, London, Surgeon to King's College Hospital, etc. In seven imperial octavo volumes, with illustrations. Volume VI, 498 pages with 124 illustrations. Cloth, $5.00 net. Philadelphia and New York: Lea Brothers & Co. 1902.

SANATORIA FOR CONSUMPTIVES. A Critical and Detailed Description, Together with an Exposition of the Open-Air Hygienic Treatment of Phthisis. By F. Ruffenacht Walters, M.D., M.R.C.P., Fellow of the Royal College of Surgeons. With an Introduction by Sir Richard Douglas Powell, Bart., M.D., F.R.C.P. Second Edition. Cloth. Pp. 446. Price, $5.00 net. London: Swan Sonnenschein & Co., Ltd. New York: E. P. Dutton & Co. 1902.

THE PRINCIPLES OF BACTERIOLOGY: A Practical Manual for Students and Physicians. By A. C. Abbott, M.D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene, University of Pennsylvania. Sixth Edition. Enlarged and Thoroughly Revised. With 111 Illustrations, of Which 26 Are Colored. Cloth. Pp. 641. Price, $2.75. Philadelphia and New York: Lea Brothers & Co. 1902.

THE ROENTGEN RAYS IN MEDICINE AND SURGERY as an Aid in Diagnosis and as a Therapeutic Agent. Designed for the Use of Practitioners and Students. By Francis H. Williams, M.D. (Harv.), Graduate of the Massachusetts Institute of Technology. With 410 Illustrations. Second Edition. With Enlarged Appendix. Cloth. Pp. 704. Price, $6.00. New York: The Macmillan Co. 1902.

PRINCIPLES OF SANITARY SCIENCE AND THE PUBLIC HEALTH, with Special Reference to the Causation and Prevention of Infectious Diseases. By William T. Sedgwick, Ph.D., Professor of Biology and Lecturer on Sanitary Science and the Public Health in the Massachusetts Institute of Technology, Boston. Cloth. Pp. 368. Price, $3.00. New York: The Macmillan Co. 1902.

THIRTY-THIRD ANNUAL REPORT OF THE SECRETARY OF STATE ON THE REGISTRATION OF BIRTHS AND DEATHS, MARRIAGES AND DIVORCES IN MICHIGAN for the Year 1899. Fred M. Warner, Secretary of State. Edited by Cressey L. Wilbur, M.D., Chief of the Division of Vital Statistics. Cloth. Pp. 157. Lansing, Mich.: Wynkoop-Hallenbeck-Crawford Co. 1902.

JAHRESBERICHT ueber die Fortschritte in der Lehre von den Pathogenen Mikro-organism unfassend Bacterien, Pilze und Protozoen. Unter mitwirking von Fachgenossen bearbeitet und herausgegeben von Dr. med. P. von Baumgarten und Dr. med. F. Tangl. Sechzenter jahrgang. 1900. Erste Abtheilung. Paper. Pp. 400. Leipzig: Verlag von S. Hirzel. 1902.

THE DIAGNOSIS OF SURGICAL DISEASES. By Dr. E. Albert, Late Director and Professor of the First Surgical Clinic at the University of Vienna. Authorized Translation from the Eighth Enlarged and Revised Edition, by Robert T. Frank, A.M., M.D., with 53 Illustrations. Cloth. Pp. 419. Price, $5.00. New York: D. Appleton & Co. 1902.

HERNIA, Its Etiology, Symptoms and Treatment. By W. McAdam Eccles, M.S. (London.), F.R.C.S. (Eng.), Senior Assistant Surgeon West London Hospital. Second Edition. Cloth. Pp. 233. Price, $2.50. New York: Wm. Wood & Co. 1902.

THE STUDY OF THE PULSE, Arterial, Venous and Hepatic and of the Movements of the Heart. By James MacKenzie, M.D. (Edin.), Burnley. Cloth. Pp. 325. Price, $4.50. New York: The Macmillan Co. 1902.

ACUTE DILATATION OF THE STOMACH. By H. Campbell Thomson, M.D. (Lond.), M.R.C.P., Assistant Physician to the Middlesex Hospital. Cloth. Pp. 54. Price, $0.75 net. New York: Wm. Wood & Co. 1902.

HEALTH, SPEECH AND SONG. A Practical Guide to Voice-Production. By Jutta Bell-Ranske. Cloth. Pp. 158. Price, $1.25. London: Swan Sonnenschein & Co., Ltd. New York: E. P. Dutton & Co. 1902.

HARE-LIP AND CLEFT PALATE. By R. W. Murray, F.R.C.S., Surgeon, Davis Lewis Northern Hospital, Liverpool. Cloth. Pp. 29. Price, $1.20. Philadelphia: P. Blakiston's Son & Co. 1902.

NINETEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF ILLINOIS. For the Year Ending Dec. 31, 1896. Cloth. Pp. 282. Springfield, Ill.: Phillips Bros. 1899.

THE LIFE OF ST. LUKE. By Edward Clapton, M.D., F.R.C.P., Late Physician to St. Thomas's Hospital. Cloth. Pp. 80. Price, $0.60 net. London: J. & A. Churchill. 1902.

THIRTEENTH ANNUAL REPORT OF THE NEW JERSEY TRAINING SCHOOL FOR THE FEEBLE-MINDED GIRLS AND BOYS. Paper. Pp. 85. Vineland, Cumberland County. 1901.

TWENTY-FIRST ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF NEW YORK. For the Year Ending Dec. 31, 1900. Cloth. Pp. 579. Albany: James B. Lyon. 1901.

IL MEDICO PRACTICO. Del Dott. Carlo Muzio. Terza epizione Riffata del Nuovo Memoriale pei Medici practici. Cloth. Pp. 492. Milano: Ulrico Hoepli. 1902.

LA PELLAGRA. Storia—Eziologia-Pathogenesi Profilassi. Del Dott. G. Antonini. Con 2 Tavole Colorate. Cloth. Pp. 166. Milano: Ulrico Hoepli. 1902.

MANUALE DI CHIMICA LEGALE (Tossicologia). Prof. Cav. Nicola Valentini, Chimico Igienista. Cloth. Pp. 243. Milano: Ulrico Hoepli. 1902.

DYNAMIC ASPECTS OF NUTRITION AND HEREDITY. By Frank Horridge. Cloth. Pp. 175. Price, $1.50 net. New York: Wm. Wood & Co. 1902.

REPORT OF THE HEALTH OFFICER OF THE DISTRICT OF COLUMBIA, 1901. Cloth. Pp. 285. Washington: Government Printing Office. 1901.

TRANSACTIONS OF THE RHODE ISLAND MEDICAL SOCIETY for 1901. Paper. Pp. 417. Providence: Snow & Farnham. 1902.

The Public Service.

Army Changes.

Movements of Army Medical Officers under orders from the Adjutant-General's Office, Washington, D. C., May 15 to 21, 1902, inclusive:

Clarence H. Connor, contract surgeon, now in Washington, D. C., will report for duty to the commanding officer, General Hospital, Washington Barracks, D. C.

Elmer A. Dean, lieutenant and asst.-surgeon, U. S. A., relieved from further duty in the Division of the Philippines and will proceed to San Francisco, and on arrival will report by telegraph to the Adjutant-General of the Army for orders.

Benjamin J. Edger, Jr., lieutenant and asst.-surgeon, U. S. A., as Dean, above.

J. M. Espin, contract surgeon, leave of absence from the Department of Cuba extended one month.

James D. Glennan, major and surgeon, U. S. A., leave of absence for fifteen days granted, to take effect about May 19, 1902, on the expiration of which he will report for duty at the U. S. Military Academy, West Point, N. Y., relieving Major William Kneedler, surgeon, U. S. A.

William G. Gregory, contract surgeon, on being relieved from duty at San Diego Barracks, Cal., to proceed to San Francisco for assignment to duty at the General Hospital, Presidio.

John R. Hicks, contract surgeon, leave of absence for one month, with permission to apply for an extension of one month, granted, to take effect on the arrival of Captain Charles F. Kieffer, asst.-surgeon, U. S. A., at Fort Screven, Ga.

William L. Kneedler, major and surgeon, U. S. A., on being relieved from duty at the U. S. Military Academy, West Point, N. Y., will proceed to San Diego Barracks, Cal., for duty at that post, relieving Contract Surgeon William G. Gregory.

William F. Lippitt, Jr., captain and asst.-surgeon, U. S. A., member of a retiring board convened at Baltimore.

Palmer H. Lyon, captain and asst.-surgeon, Vols., leave of absence for ten days granted.

Theodore C. Lyster, lieutenant and asst.-surgeon, U. S. A., from Fort Schuyler, N. Y., to duty at the General Hospital, Presidio of San Francisco.

James E. Miller, contract surgeon, now at Des Moines, Iowa, will proceed to Fort Canby, Wash., to relieve Contract Surgeon Joseph W. Walsh.

George Newlove, contract surgeon, leave of absence extended one month.

Albert E. Persons, lieutenant and asst.-surgeon, U. S. A., from Fort Snelling, Minn., to duty at Fort Flagler, Wash.

Edward W. Pinkham, lieutenant and asst.-surgeon, U. S. A., resignation accepted by the President, to take effect June 10, 1902; leave of absence granted until that date.

James Reagles, contract surgeon, from Fort Stevens, Ore., on the arrival of Contract Surgeon R. D. Smith, to duty at Fort Snelling, Minn.

William Roberts, lieutenant and asst.-surgeon, U. S. A., now in Washington, D. C., to report to the commanding officer, General Hospital, Washington Barracks, D. C., for treatment.

Edward R. Schreiner, lieutenant and asst.-surgeon, U. S. A., member of a retiring board at Baltimore.

John M. Shepherd, contract surgeon, from duty at the General Hospital, Presidio of San Francisco to Fort Schuyler, N. Y., for post duty and to relieve Lieutenant Theodore C. Lyster, asst.-surgeon, U. S. A.

Rodney D. Smith, contract surgeon, now at Bloomington, Ind., will proceed to Fort Stevens, Oregon, for duty at that post.

Jesse P. Truax, contract surgeon, from Fort Flagler, Wash., to duty at Skagway, Alaska.

Hugo A. Wahl, contract surgeon, from duty at Fort Strong, Mass., to San Francisco for annulment of contract.

William J. Wakeman, major and surgeon, U. S. A., leave of absence from the department of California extended one month.

Joseph W. Walsh, contract surgeon, from Fort Canby, Wash., to San Francisco, en route for assignment in the Division of the Philippines.

APPOINTMENTS, PROMOTIONS, CASUALTIES, ETC.

Appointments, promotions, casualties, etc., of medical officers of the Army recorded in the Adjutant-General's Office between April 15 and May 15, 1902:

Regular Army Promotions.—Lieutant-Colonel Charles L. Heizmann, deputy surgeon-general, to be assistant surgeon-general with the rank of colonel, April 7, 1902; Major Louis M. Maus, surgeon, to be deputy surgeon-general, with the rank of lieutenant-colonel, April 7, 1902; Captain Charles Willcox, assistant surgeon, to be surgeon, with the rank of major, April 7, 1902.

Died.—Colonel James P. Kimball, retired April 19, 1902, at Tannersville, N. Y.; Major John Brooke, retired, May 12, 1902, at Radnor, Pa.; Major Luther B. Grandy, surgeon, at Lipa, Luzon, April 12, 1902.

Volunteers, Appointments.—Thomas S. Lowe, of Maryland, contract surgeon, to be assistant surgeon, with the rank of captain, March 11, 1902; William A. McVean, of Ohio, contract surgeon, to be assistant surgeon, with the rank of captain, March 14, 1902.

Navy Changes.

Changes in the Medical Corps of the Navy, week ending May 24, 1902:

Asst.-Surgeons C. M. Oman and W. E. Griffin reported at Cavite, May 2 and 12, respectively.

Surgeon R. P. Crandall, detached from recruiting duty and ordered to San Francisco and thence to Guam, L. I.

P. A. Surgeon M. K. Johnson, order of Oct. 5, 1901, modified; detached from duty at Guam upon reporting of relief and ordered home to wait orders.

Asst.-Surgeon J. G. Field, retired, ordered to recruiting duty.

P. A. Surgeon D. B. Kerr, detached from the *Wabash*, and ordered to the Boston Navy Yard.

Asst.-Surgeon R. E. Hoyt ordered to the *Wabash*.

Asst.-Surgeon J. P. Traynor, ordered to the Naval Hospital, New York.

Asst.-Surgeon J. F. Strine, ordered to the Naval Hospital, Norfolk, Va.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the U. S. Marine-Hospital Service for the seven days ended May 22, 1902:

P. A. Surgeon C. P. Wertenbaker, leave of absence for one day, May 20, 1902, under paragraph 179 of regulations. Detailed to represent the service at the meeting of the Association of Military Surgeons, in Washington, D. C., June 5, 6 and 7, 1902.

P. A. Surgeon J. A. Nydegger, granted leave of absence for ten days from June 2.

A. A. Surgeon Hugh Burford, department letter of May 7, 1902, granting leave of absence for two weeks, amended so that said leave shall be for twenty-one days from May 15.

Senior Pharmacist S. W. Richardson, granted leave of absence for thirty days from June 10.

PROMOTIONS.

P. A. Surgeon J. O. Cobb, promoted and appointed surgeon, to rank as such from April 20.

Asst.-Surgeon Taliaferro Clark, promoted and appointed passed assistant-surgeon, to rank as such from March 27.

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Board convened to meet at the Bureau, May 20, 1902, for the physical examination of such officers of the Revenue Cutter Service as may present themselves. Detail for the Board: Surgeon R. M. Woodward, chairman; Asst.-Surgeon B. S. Warren, recorder.

Board convened to meet at the Bureau, June 16, 1902, for the purpose of examining candidates for appointment as assistant-surgeon in the Marine-Hospital Service. Detail for the Board: Surgeon P. H. Bailhache, chairman; Surgeon G. T. Vaughan; P. A. Surgeon H. D. Geddings, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Marine-Hospital Service, during the week ended May 23, 1902:

SMALLPOX—UNITED STATES.

California: Los Angeles, May 3-10, 3 cases; San Francisco, May 4-11, 4 cases.
Colorado: Denver, May 3-10, 7 cases.
District of Columbia: Washington, May 10-17, 1 case.
Florida: Jacksonville, May 10-17, 2 cases.
Illinois: May 10-17, Belleville, 2 cases; Chicago, 19 cases, 1 death; Freeport, 4 cases; Galesburg, 4 cases.
Indiana: Indianapolis, May 10-17, 23 cases; South Bend, May 10-17, 3 cases; Terre Haute, May 3-17, 4 cases.
Kansas: Wichita, May 10-17, 5 cases.
Louisiana: New Orleans, May 10-17, 1 case.
Massachusetts: May 10-17, Boston, 46 cases, 6 deaths; Brockton, 1 case; Chelsea, 2 cases; Everett, 1 case, 1 death; Fall River, 3 cases; Lowell, 3 cases; Malden, 6 cases; Newton, 1 case; Somerville, 1 death.
Michigan: May 10-17, Detroit, 2 cases; Ludington, 24 cases, 1 death.
Minnesota: Winona, May 3-17, 4 cases.
Missouri: St. Louis, May 11-18, 43 cases.
Montana: Butte, May 4-11, 6 cases.
Nebraska: Omaha, May 10-17, 6 cases.
New Jersey: Camden, May 10-17, 3 cases; Hudson County, including Jersey City, May 4-18, 74 cases, 17 deaths; Newark, May 10-17, 54 cases, 9 deaths; Plainfield, May 10-17, 1 death.
New York: May 10-17, Elmira, 2 cases; New York, 46 cases, 7 deaths.
Ohio: Cincinnati, May 9-16, 7 cases; Hamilton, May 10-17, 1 case; Toledo, May 10-17, 1 case.
Pennsylvania: Columbia, April 28-May 5, 21 cases; Erie, May 10-17, 12 cases; McKeesport, May 10-17, 1 case; Philadelphia, May 10-17, 12 cases, 1 death; Pittsburg, May 10-17, 9 cases, 2 deaths; Scranton, May 10-17, 2 cases.
Rhode Island: Providence, May 10-17, 1 case.
Tennessee: Memphis, May 10-17, 2 cases, 1 death.
Washington: Tacoma, May 4-11, 1 case.
Wisconsin: Green Bay, May 11-18, 5 cases.

SMALLPOX—INSULAR.

Porto Rico: April 19-May 3, Arecibo, 75 cases; Caguos, 36 cases; Camuy, 56 cases; Hatillos, 7 cases; Ponce, 30 cases; San Juan, 40 cases.

SMALLPOX—FOREIGN.

Austria: Prague, April 12-May 3, 19 cases.
Belgium: Antwerp, April 19-May 3, 25 cases, 2 deaths; Ghent, April 5-May 3, 3 deaths.
Brazil: Pernambuco, March 15-April 15, 52 deaths; Rio de Janeiro, April 6-20, 11 deaths.
Canada: Halifax, May 3-17, 4 cases; Winnipeg, April 26-May 10, 11 cases, 1 death.
China: Hongkong, March 29-April 12, 6 cases, 6 deaths.
Colombia: Cartagena, April 21-27, 2 cases; Panama, April 29-May 12, 80 cases.
France: Paris, April 5-12, 2 deaths; April 19-26, 1 death.
Great Britain: Dundee, April 26-May 3, 2 cases; Glasgow, May 3-9, 2 cases, 1 death; Liverpool, April 19-26, 3 cases; London, April 19-May 3, 617 cases, 85 deaths; North Shields, April 19-26, 23 cases; South Shields, April 19-26, 9 cases.
India: Bombay, April 15-22, 5 deaths; Calcutta, April 12-19, 10 deaths; Karachi, April 13-20, 7 cases, 2 deaths; Madras, April 12-18, 5 deaths.
Italy: Palermo, April 12-May 3, 65 cases, 16 deaths; Rome, March 22-29, 1 death.
Mexico: Vera Cruz, April 26-May 3, 1 case, 1 death.
Russia: Moscow, April 12-26, 10 cases, 6 deaths; Odessa, April 12-May 3, 19 cases, 2 deaths; St. Petersburg, April 12-26, 16 cases, 2 deaths; Warsaw, April 5-12, 1 death.
Straits Settlements: Singapore, March 15-29, 1 death.
Switzerland: Geneva, April 5-19, 2 cases.
Uruguay: Montevideo, April 15-22, 75 cases, 2 deaths.

YELLOW FEVER.

Brazil: Pernambuco, March 15-April 15, 1 death; Rio de Janeiro, April 6-20, 67 deaths.
Costa Rico: Port Limon, May 1-7, 2 cases suspected.
Mexico: Vera Cruz, April 26-May 3, 10 cases, 7 deaths.

CHOLERA.

China: Hongkong, March 29-April 12, 56 cases, 50 deaths.
India: Bombay, April 15-22, 3 deaths; Calcutta, April 12-19, 153 deaths.
Straits Settlements: Singapore, March 15-29, 17 deaths.

PLAGUE—INSULAR.

Hawaii: Honolulu, May 7-8, 2 deaths.

PLAGUE—FOREIGN.

Brazil: Pernambuco, March 15-April 15, 34 deaths.
China: Hongkong, March 29-April 12, 5 cases, 5 deaths.
India: Bombay, April 15-22, 608 deaths; Calcutta, April 12-19, 588 deaths; Karachi, April 13-20, 161 cases, 132 deaths.

John R. Hicks, contract surgeon, leave of absence for one month, with permission to apply for an extension of one month, granted, to take effect on the arrival of Captain Charles F. Kieffer, asst.-surgeon, U. S. A., at Fort Screven, Ga.

William L. Kneedler, major and surgeon, U. S. A., on being relieved from duty at the U. S. Military Academy, West Point, N. Y., will proceed to San Diego Barracks, Cal., for duty at that post, relieving Contract Surgeon William G. Gregory.

William F. Lippitt, Jr., captain and asst.-surgeon, U. S. A., member of a retiring board convened at Baltimore.

Palmer H. Lyon, captain and asst.-surgeon, Vols., leave of absence for ten days granted.

Theodore C. Lyster, lieutenant and asst.-surgeon, U. S. A., from Fort Schuyler, N. Y., to duty at the General Hospital, Presidio of San Francisco.

James E. Miller, contract surgeon, now at Des Moines, Iowa, will proceed to Fort Canby, Wash., to relieve Contract Surgeon Joseph W. Walsh.

George Newlove, contract surgeon, leave of absence extended one month.

Albert E. Persons, lieutenant and asst.-surgeon, U. S. A., from Fort Snelling, Minn., to duty at Fort Flagler, Wash.

Edward W. Pinkham, lieutenant and asst.-surgeon, U. S. A., resignation accepted by the President, to take effect June 10, 1902; leave of absence granted until that date.

James Reagles, contract surgeon, from Fort Stevens, Ore., on the arrival of Contract Surgeon R. D. Smith, to duty at Fort Snelling, Minn.

William Roberts, lieutenant and asst.-surgeon, U. S. A., now in Washington, D. C., to report to the commanding officer, General Hospital, Washington Barracks, D. C., for treatment.

Edward R. Schreiner, lieutenant and asst.-surgeon, U. S. A., member of a retiring board at Baltimore.

John M. Shepherd, contract surgeon, from duty at the General Hospital, Presidio of San Francisco to Fort Schuyler, N. Y., for post duty and to relieve Lieutenant Theodore C. Lyster, asst.-surgeon, U. S. A.

Rodney D. Smith, contract surgeon, now at Bloomington, Ind., will proceed to Fort Stevens, Oregon, for duty at that post.

Jesse P. Truax, contract surgeon, from Fort Flagler, Wash., to duty at Skagway, Alaska.

Hugo A. Wahl, contract surgeon, from duty at Fort Strong, Mass., to San Francisco for annulment of contract.

William J. Wakeman, major and surgeon, U. S. A., leave of absence from the department of California extended one month.

Joseph W. Walsh, contract surgeon, from Fort Canby, Wash., to San Francisco, en route for assignment in the Division of the Philippines.

APPOINTMENTS, PROMOTIONS, CASUALTIES, ETC.

Appointments, promotions, casualties, etc., of medical officers of the Army recorded in the Adjutant-General's Office between April 15 and May 15, 1902:

Regular Army Promotions.—Lieutant-Colonel Charles L. Heizmann, deputy surgeon-general, to be assistant surgeon-general with the rank of colonel, April 7, 1902; Major Louis M. Maus, surgeon, to be deputy surgeon-general, with the rank of lieutenant-colonel, April 7, 1902; Captain Charles Willcox, assistant surgeon, to be surgeon, with the rank of major, April 7, 1902.

Died.—Colonel James P. Kimball, retired April 19, 1902, at Tannersville, N. Y.; Major John Brooke, retired, May 12, 1902, at Radnor, Pa.; Major Luther B. Grandy, surgeon, at Lipa, Luzon, April 12, 1902.

Volunteers, Appointments.—Thomas S. Lowe, of Maryland, contract surgeon, to be assistant surgeon, with the rank of captain, March 11, 1902; William A. McVean, of Ohio, contract surgeon, to be assistant surgeon, with the rank of captain, March 14, 1902.

Navy Changes.

Changes in the Medical Corps of the Navy, week ending May 24, 1902:

Asst.-Surgeons C. M. Oman and W. E. Griffin reported at Cavite, May 2 and 12, respectively.

Surgeon R. P. Crandall, detached from recruiting duty and ordered to San Francisco and thence to Guam, L. I.

P. A. Surgeon M. K. Johnson, order of Oct. 5, 1901, modified; detached from duty at Guam upon reporting of relief and ordered home to wait orders.

Asst.-Surgeon J. G. Field, retired, ordered to recruiting duty.

P. A. Surgeon D. B. Kerr, detached from the *Wabash*, and ordered to the Boston Navy Yard.

Asst.-Surgeon R. E. Hoyt ordered to the *Wabash*.

Asst.-Surgeon J. P. Traynor, ordered to the Naval Hospital, New York.

Asst.-Surgeon J. F. Strine, ordered to the Naval Hospital, Norfolk, Va.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the U. S. Marine-Hospital Service for the seven days ended May 22, 1902:

P. A. Surgeon C. P. Wertenbaker, leave of absence for one day, May 20, 1902, under paragraph 179 of regulations. Detailed to represent the service at the meeting of the Association of Military Surgeons, in Washington, D. C., June 5, 6 and 7, 1902.

P. A. Surgeon J. A. Nydegger, granted leave of absence for ten days from June 2.

A. A. Surgeon Hugh Burford, department letter of May 7, 1902, granting leave of absence for two weeks, amended so that said leave shall be for twenty-one days from May 15.

Senior Pharmacist S. W. Richardson, granted leave of absence for thirty days from June 10.

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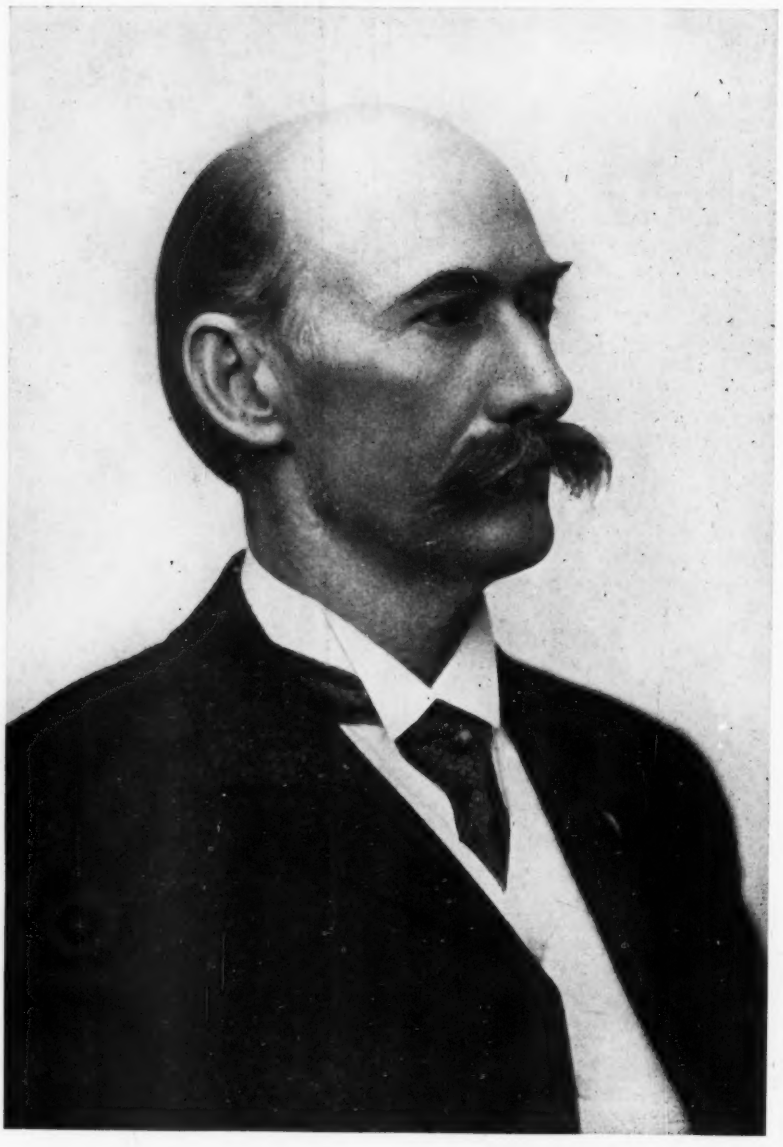
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